

SAFETY SUPPLEMENT

TECHNICAL MANUAL

**AEROSPACE EMERGENCY RESCUE
AND MISHAP RESPONSE INFORMATION
(EMERGENCY SERVICES)**

THIS PUBLICATION SUPPLEMENTS TO 00-105E-9 REVISION 8, DATED 30 SEPTEMBER 2002, LOCATED AT WEB SITE:<http://www.robins.af.mil/logistics/LGEDA/Documents/to00-105e-9.htm>.

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TO THE ATTENTION OF ALL AFFECTED AIR FORCE PERSONNEL.**

PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

27 November 2003**71. PURPOSE.**

This supplement provides instructions for update of TO 00-105E-9 Revision 8, dated 30 September 2002, affecting Chapter 8 USAF Fighter Aircraft. This update adds new information regarding the F-16 procedures with information regarding associated hazards provided by the SPO and a recent verification review at Edwards AFB, CA.

2. INSTRUCTIONS.

- a. This information, if it applies to your operation, can be downloaded and printed from this web site by the end user. Use the most current Adobe Reader for this function. This software is free and can be downloaded from Adobe.com at their web site. PDF files should be downloaded with the Reader running on your PC to reduce download time.
- b. This supplement to Chapter 8 adds information based on newly provided source data information regarding the F-16. This updated file addresses aircraft entry, 4 methods of engines shutdown, and the portable engine shutdown box information. The new update should be added to Chapter 8 in TO 00-105E-9 Revision 8. The end user should save this file and print the affected pages, if applicable to the user's operation. File a copy of this Safety Supplement with the main Technical Order according to current regulations.

NOTE

The operational user file is the whole or selected printed pages from the web site placed in a binder used for local, transient operations or both. This information should also be included in mobility boxes where applicable. If your unit or a part of your unit is serving elsewhere, they should be informed of this Safety Supplement and how to obtain it. See TO 00-5-2 paragraphs 1-1.4, 1-1.4.1, and 1-1.6 for Local Reproduction of TOs and Digital Media guidance.

THE END



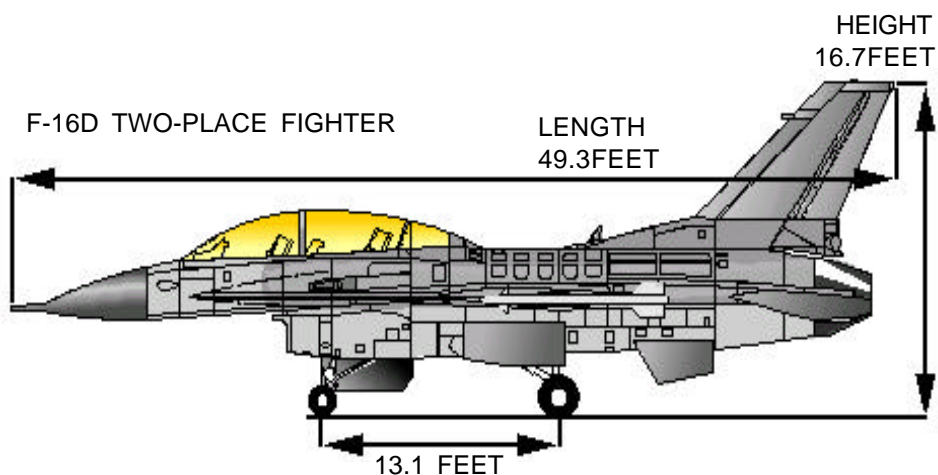
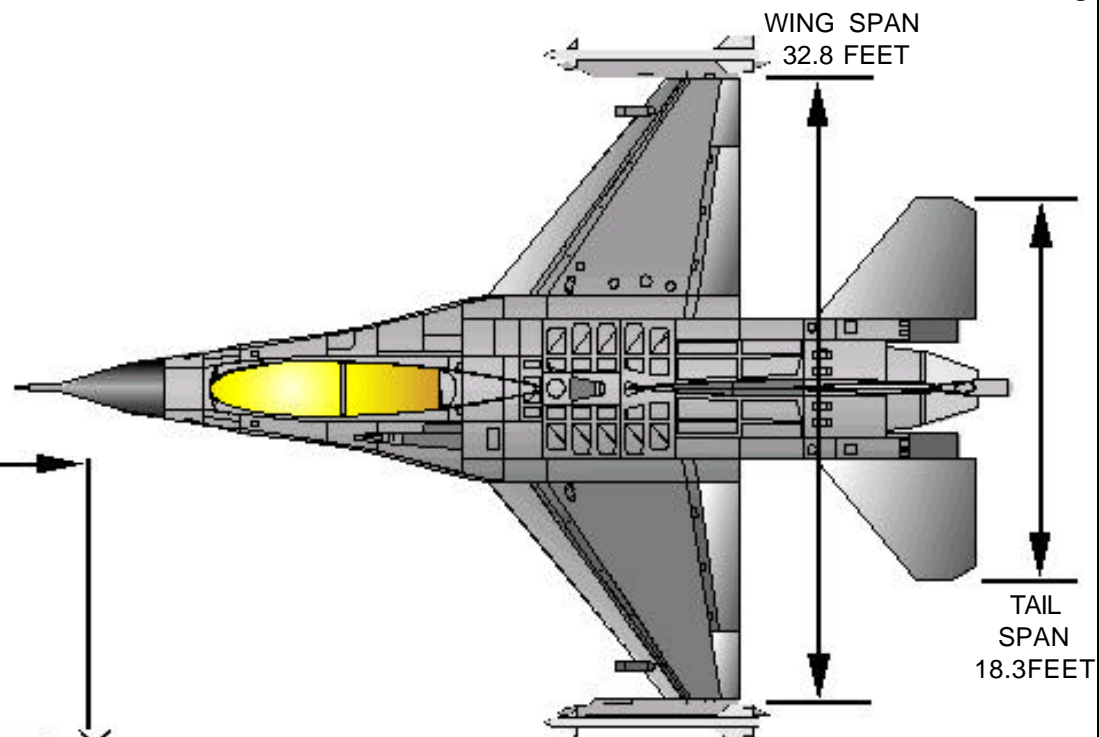
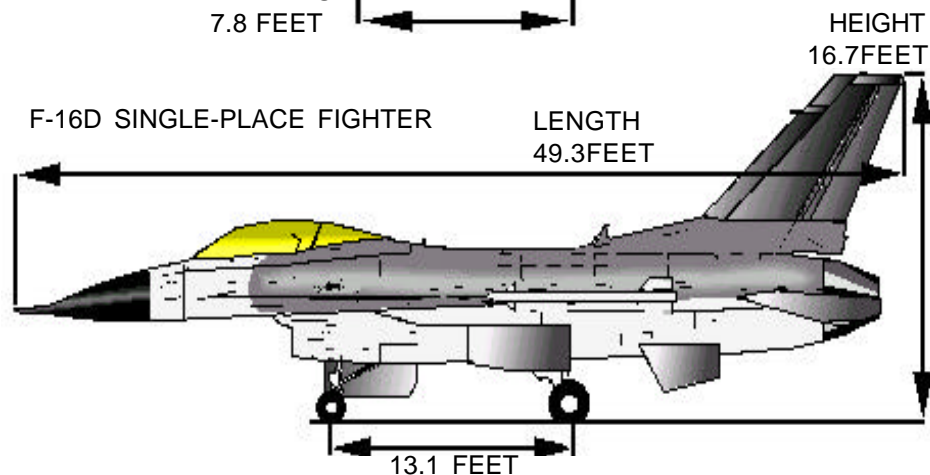
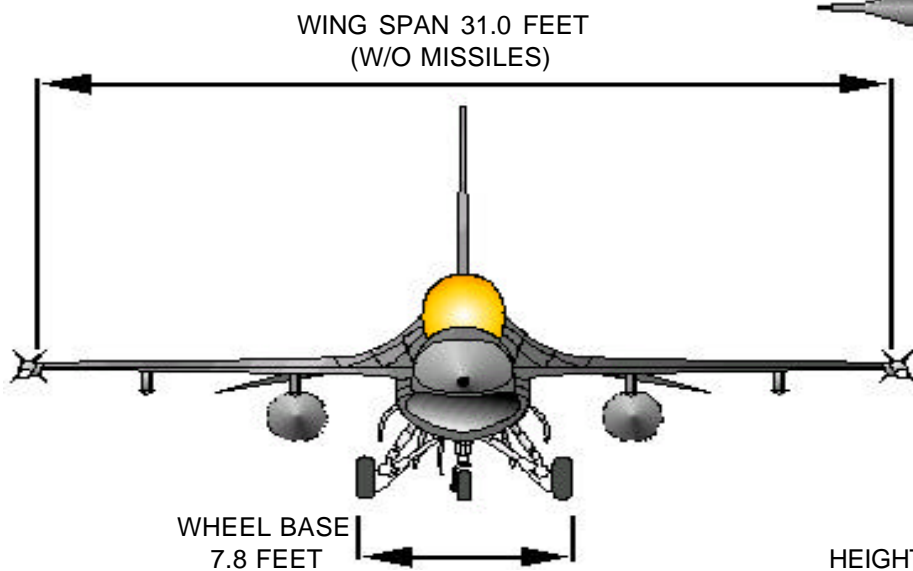
AIRCRAFT DIMENSIONS

CHARACTERISTICS:

WING AREA - 300 SQ.FT

LEADING EDGE SWEEP 40 DEGREES





F-16

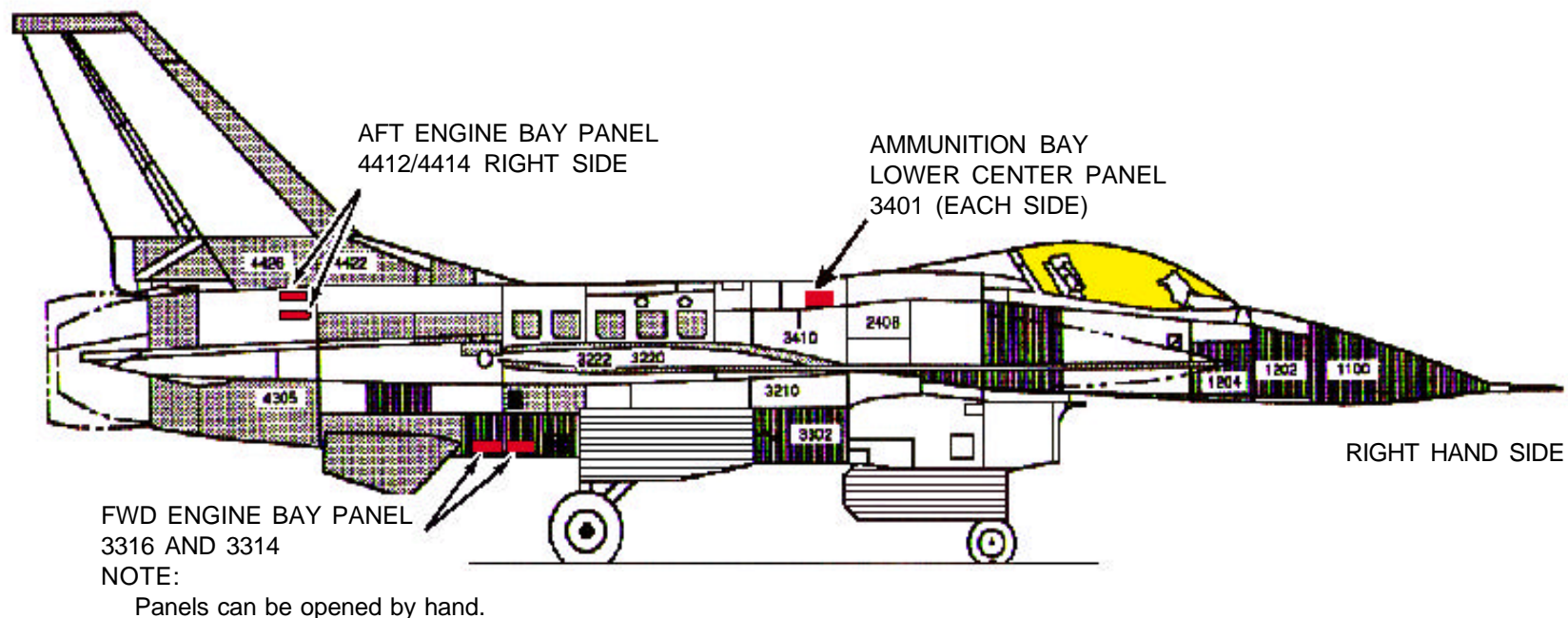
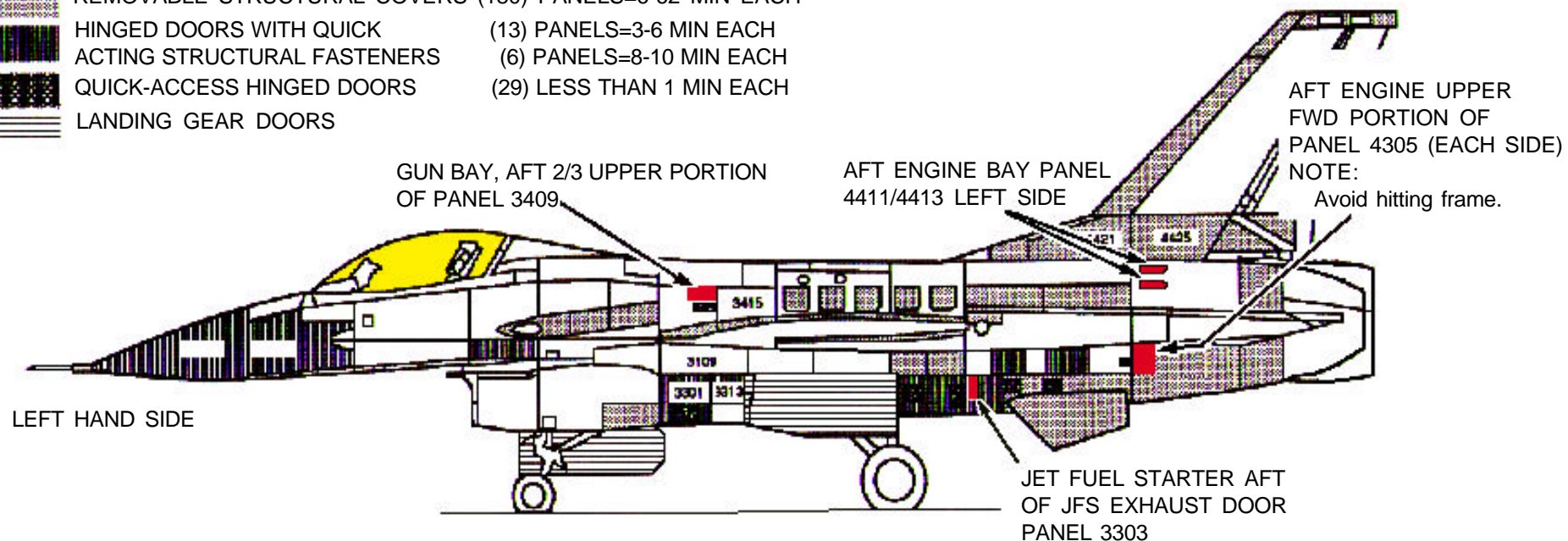


F-16.3 AIRCRAFT SKIN PENETRATION POINTS AND FIRE ACCESS LOCATIONS





F-16

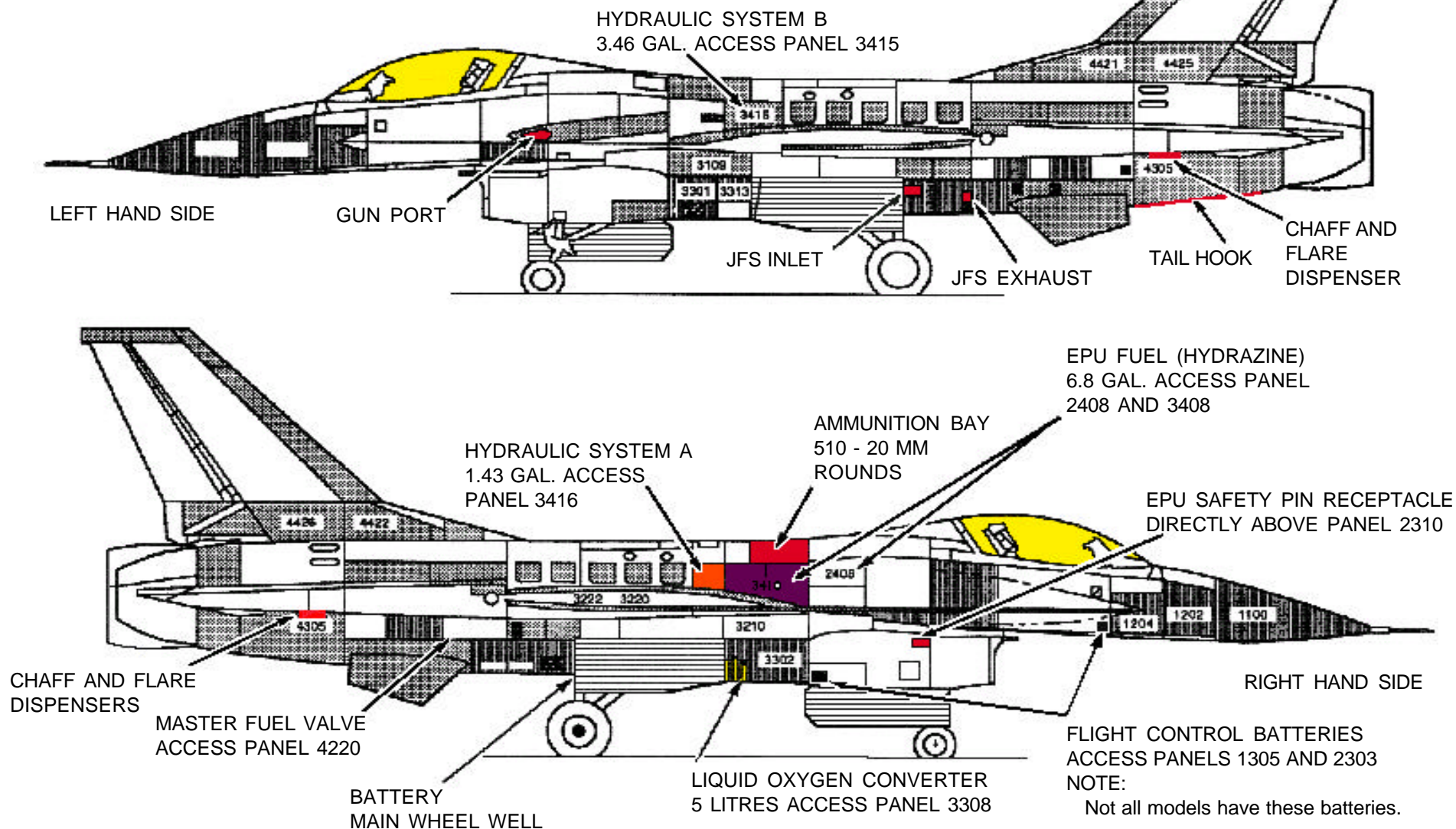
T.O. 00-105E-9

-  REMOVABLE STRUCTURAL COVERS (180) PANELS=6-62 MIN EACH
-  HINGED DOORS WITH QUICK ACTING STRUCTURAL FASTENERS (13) PANELS=3-6 MIN EACH
-  QUICK-ACCESS HINGED DOORS (6) PANELS=8-10 MIN EACH
-  LANDING GEAR DOORS (29) LESS THAN 1 MIN EACH



AIRCRAFT HAZARDS AND ACCESS PANELS

- | | |
|---|--|
|  | REMOVABLE STRUCTURAL COVERS (180) PANELS=6-62 MIN EACH |
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| | LANDING GEAR DOORS |



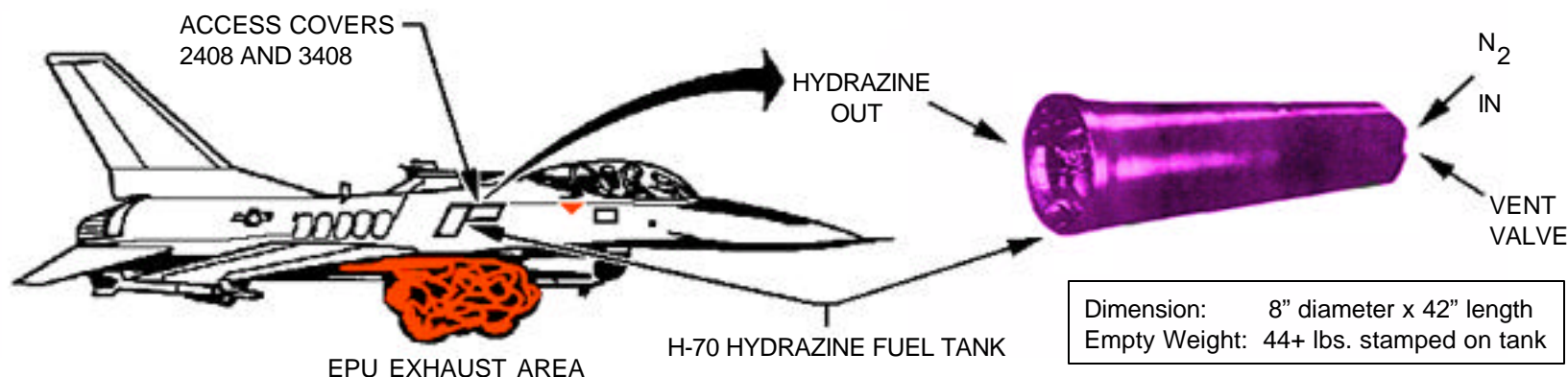
EPU FUEL-H-70 HYDRAZINE HAZARD

WARNING

AIRCRAFT CRASH OR EMERGENCY LANDING MAY RESULT IN HYDRAZINE SPILL OR VAPORS, RESCUE PERSONNEL WHO MAY BE EXPOSED SHALL WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE GARMENTS - FACE MASK AND PLASTIC OR RUBBER GLOVES AS A MINIMUM. SPILLED HYDRAZINE SHOULD BE DILUTED WITH EQUAL AMOUNTS OF WATER SPRAY TO RENDER NONFLAMMABLE.

CAUTION

IF EPU IS OPERATING IN THE HYDRAZINE MODE, SELF - CONTAINED BREATHING APPARATUS SHOULD BE WORN BY RESCUE PERSONNEL IN THE IMMEDIATE VICINITY OF AIRCRAFT AND DURING EMERGENCY CANOPY ENTRANCE. THE AMMONIA CONSTITUENT OF EPU EXHAUST MAY CAUSE IRRITATION OF EYES, NOSE AND THROAT.



GENERAL INFORMATION:

- F-16 Emergency Power Unit (EPU) Uses 70% Hydrazine and 30% Water Blend (H-70) as Fuel.
- Exhaust Gases from EPU Turbine are 40% Ammonia, 17% Nitrogen, 15% Hydrogen and 28% Water.
- EPU Operation Results in Noise Similar to a high pitched whine.
- Fire Hazards of Hydrazine are Similar to JP-4.
- Odor (Ammonia) Threshold is 2 to 3 ppm.
- OSHA Hydrazine Exposure Limit is 1.0 ppm Average Over an 8 Hour Period.
- ACGIH Hydrazine Exposure Limit is 0.1 ppm Average Over an 8 Hour Period; Excursion Up to 0.3 ppm are Permitted, Provided 0.1 ppm Average for 8 Hours is Not Exceeded.
- For additional information, refer to TO 1F-16A-2-49GS-00-1, Section IV, H-70 Fuel Spill Management and Neutralization and AFM 161-30, Chapter 9.

WING FUEL TANKS

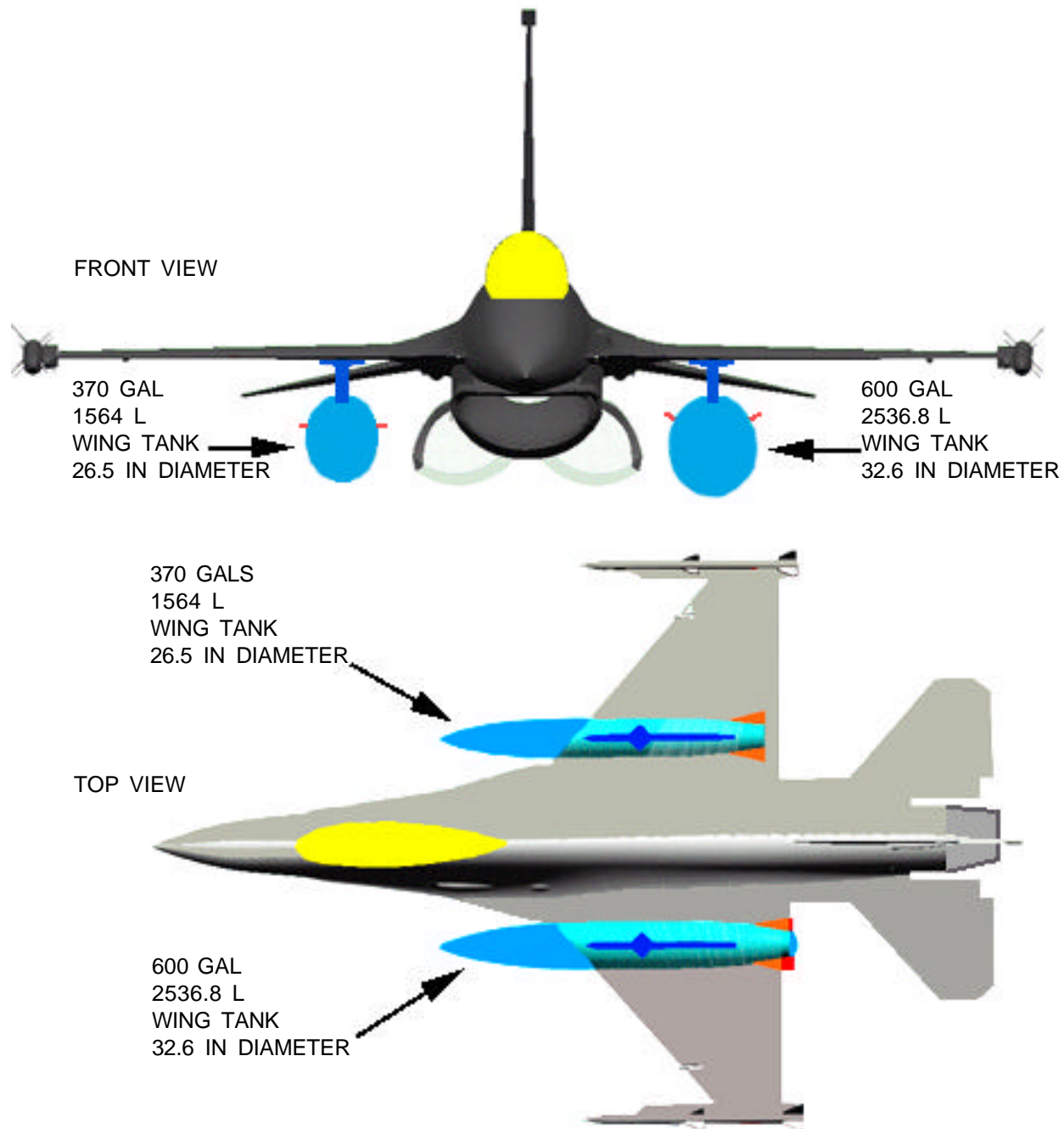
NOTE:

Larger capacity wing tanks are being added to F-16 aircraft slated for foreign sales and a possible configuration for the USAF. These aircraft may be flown in the U.S. as well as abroad, therefore this information is required for rescue and response crews.

1. WING MOUNTED FUEL TANKS

NOTE:

Each side can either carry the standard 370 gallon (1564 litres) or 600 gallon (2536.8 litres) under wing fuel tank.



CONFORMAL FUEL TANKS

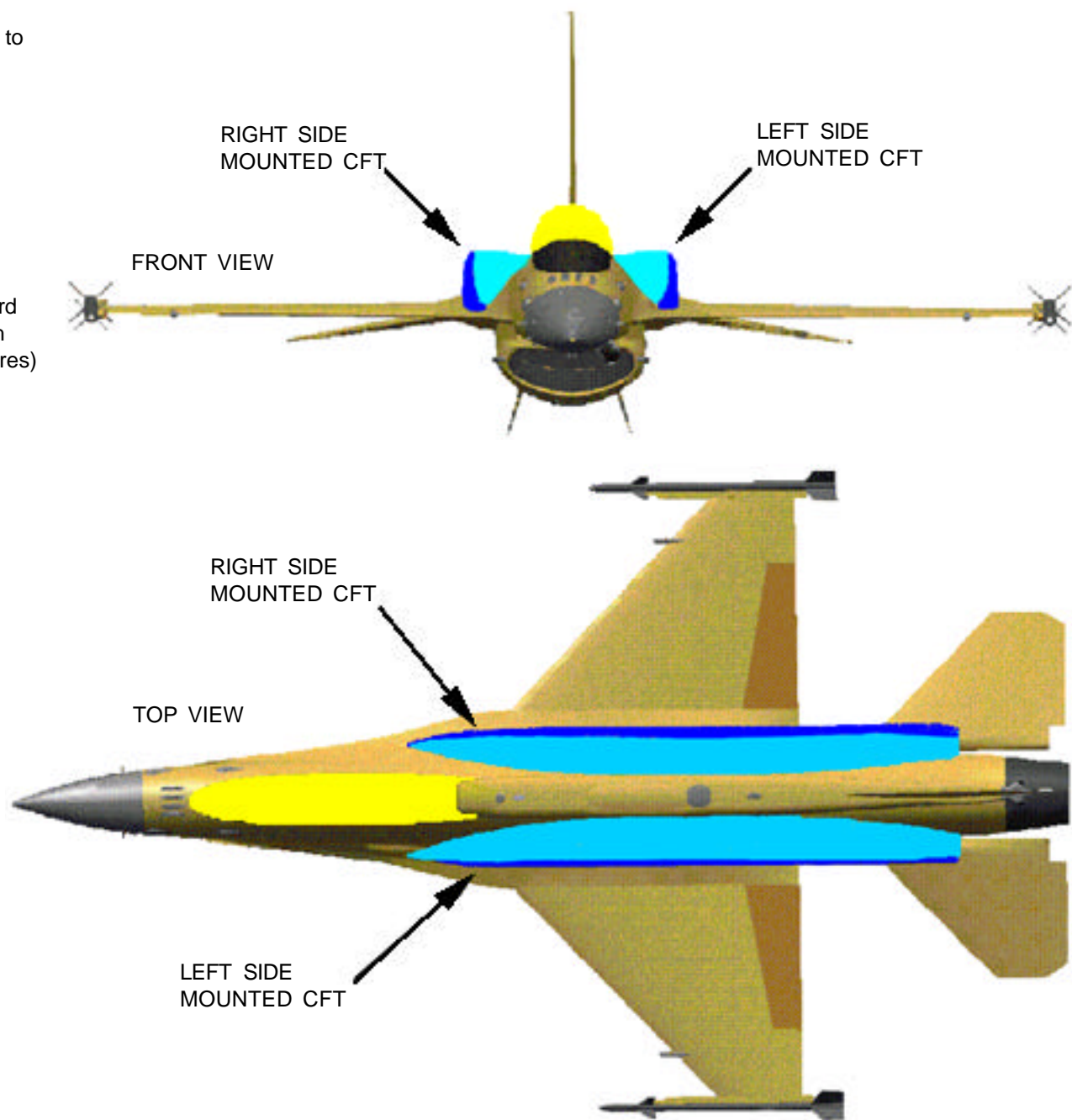
NOTE:

Side mounted conformal tanks are being added to F-16 aircraft slated for foreign sales and a possible configuration for the USAF. These aircraft may be flown in the U.S. as well as abroad, therefore this information is required for rescue and response crews.

1. SIDE MOUNTED CONFORMAL FUEL TANKS

NOTE:

Each upper fuselage side is made up of a forward and aft conformal fuel tank (CFT) section. Each side holds approximately 220 gallons (930.16 litres) or 1500 pounds. Total CFT fuel is 440 gallons (1860.32 litres) or 3000 pounds.



AIRFRAME MATERIALS

WARNING

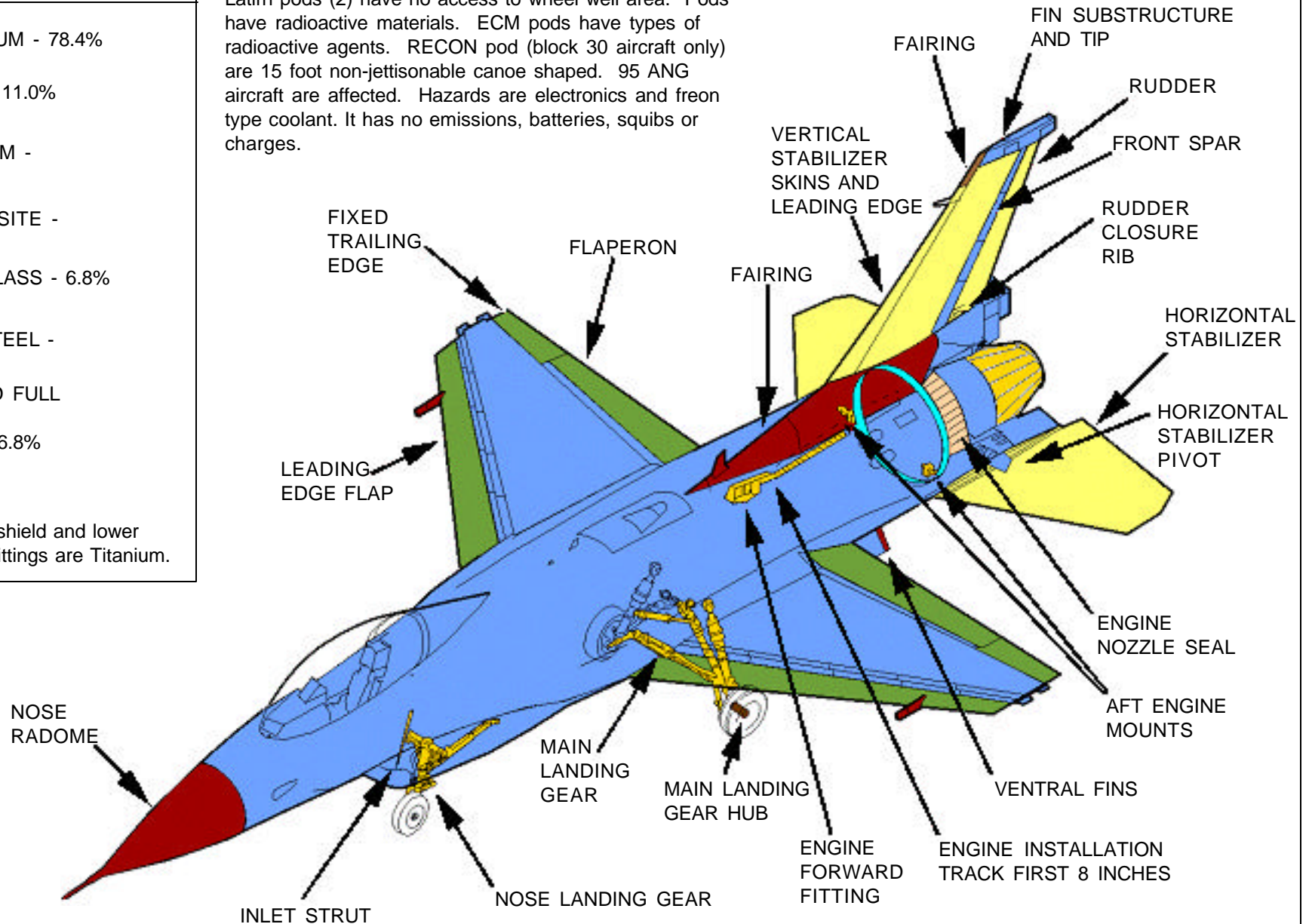
Latrim pods (2) have no access to wheel well area. Pods have radioactive materials. ECM pods have types of radioactive agents. RECON pod (block 30 aircraft only) are 15 foot non-jettisonable canoe shaped. 95 ANG aircraft are affected. Hazards are electronics and freon type coolant. It has no emissions, batteries, squibs or charges.

LEGEND

- ALUMINUM - 78.4%
- STEEL - 11.0%
- TITANIUM - 0.8%
- COMPOSITE - 3.0%
- FIBERGLASS - 6.8%
- M300 STEEL - 6.8%
- BONDED FULL DEPTH CORE - 6.8%

NOTE:

Engine heat shield and lower wing attach fittings are Titanium.



AIRFRAME MATERIALS-Continued

COMPOSITE WEIGHTS

NOTE:

Use the legend on page F-16.7 for composites color coding.

Various type versions of the F-16 use 171-222 pounds of composite materials for the skins of the horizontal tails, vertical fin and rudder, as well as certain structure inside the vertical fin.

F-16A/B: Small Tail 171 1lbs

F-16A/B: Big Tail 222.6 lbs

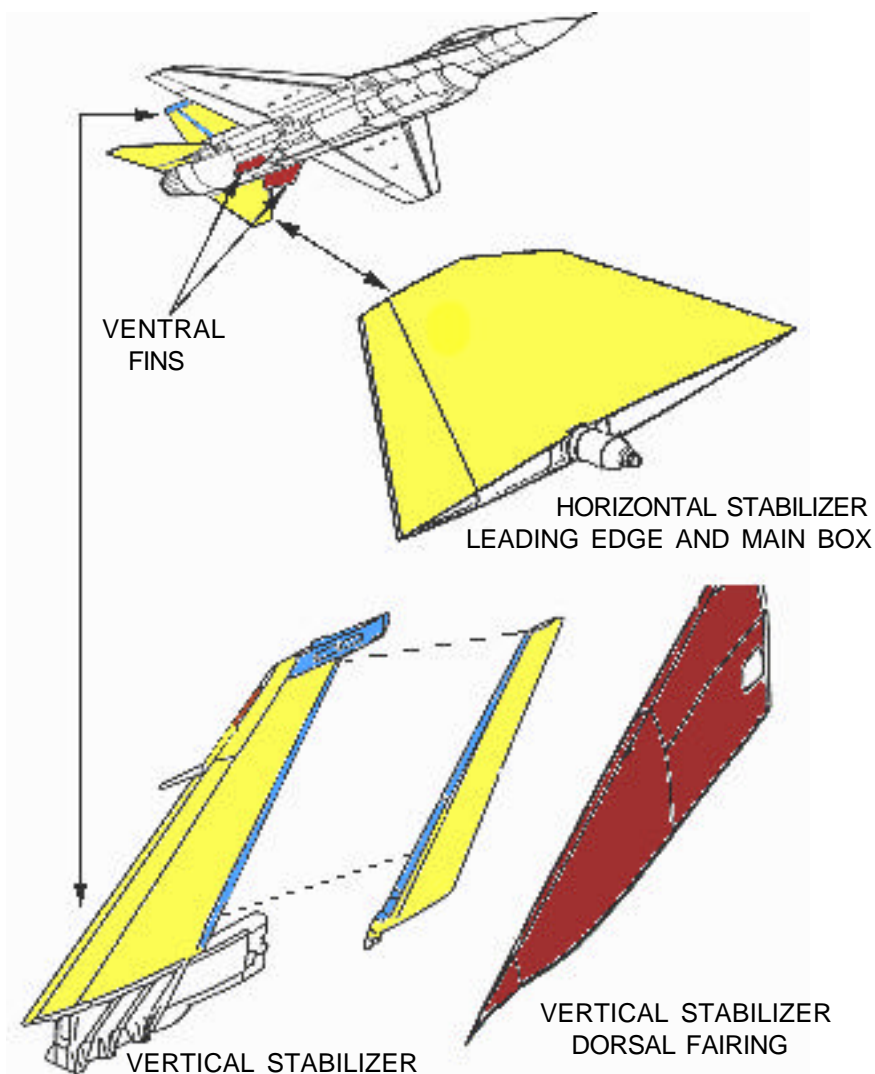
F-16C/D: 222.3 lbs

F-16 C/D COMPOSITE MATERIALS LOCATION AND DESCRIPTION

Composite materials are in the ventral fins, vertical and horizontal stabilizers and radome. Because of redesigns, expect to find other miscellaneous aircraft parts made out of composite materials. The C/D ventral fin is a bonded assembly that incorporates a fiberglass epoxy sandwich laminate in the aft region. The core is an organic material. The horizontal stabilizer consists of two basic structures, the main box and the leading edge assembly. The main box is skinned with a carbon fiber epoxy laminate. The laminate's surface layer is a glass woven fabric. Underneath the fabric layer are layers of unidirectional carbon fiber/epoxy tape. Each tape layer has a specific fiber orientation. This will be obvious when looking at an impact-damaged piece. There may be woven fabrics dispersed among the tape layers. The laminate is bonded to a corrugated aluminum surface. There is a layer of fiberglass between the aluminum surface and the carbon fiber layer.

The leading edge is a sandwiched composite. The skin is a carbon fiber epoxy laminate bonded to an aluminum honeycomb core. A carbon fiber epoxy channel section is used as an aft closure beam bonded to the sandwiched laminate. A fiberglass wedge is used as a leading edge closure capped with stainless steel.

The radome is a glass/epoxy filament wound composite with a surface layer of a woven glass fabric. The F-16 radome fiber directions are longitudinal and circumferential. The fin box of the vertical tail is skinned with carbon fiber epoxy laminate. The lower fin leading edge is a carbon fiber/epoxy sandwich laminate. The rudder contains a carbon fiber / epoxy sandwich laminate. The core is an aluminum honeycomb material. The vertical tail dorsal fairing skin is fiberglass.



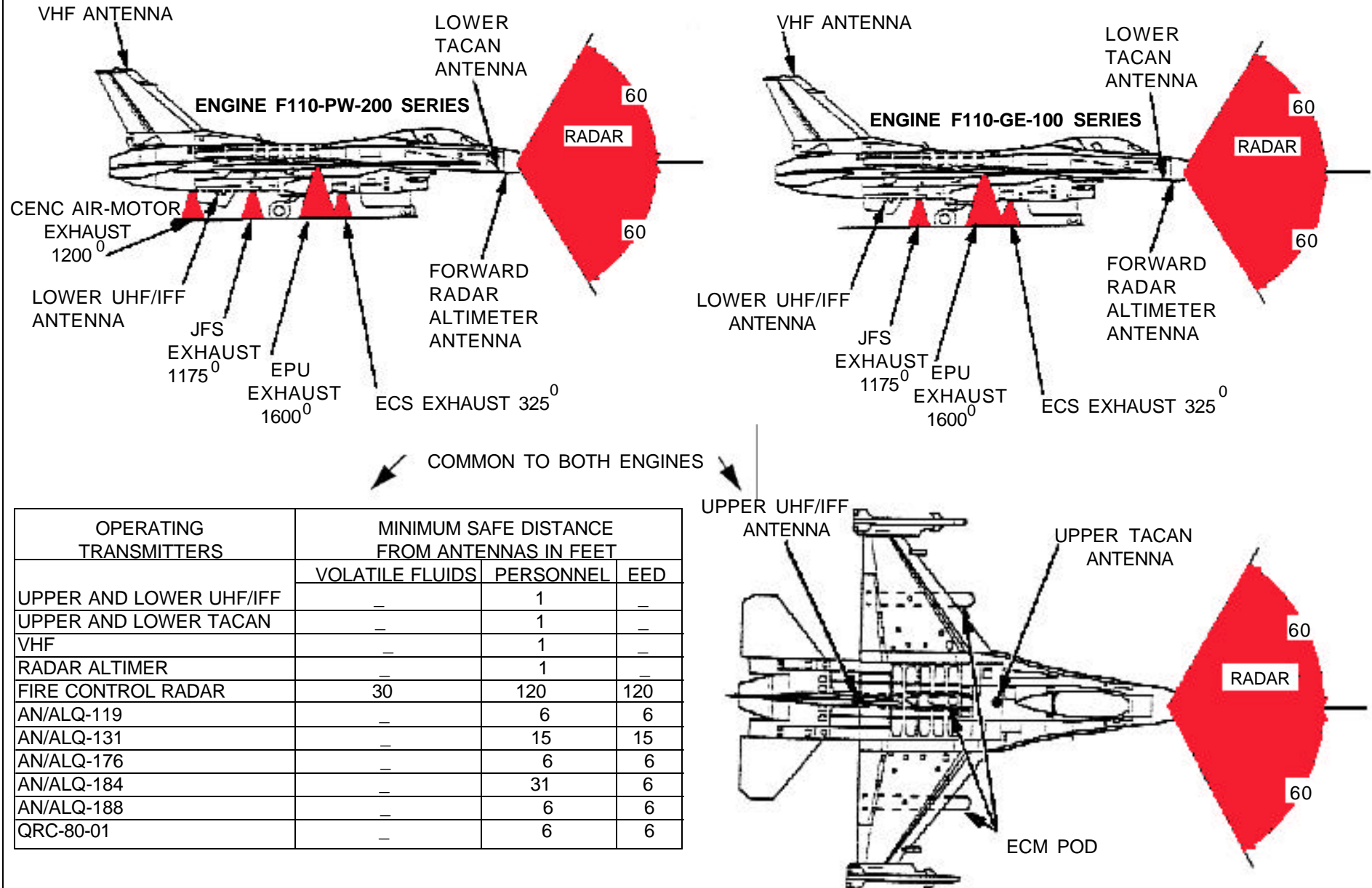
AIRCRAFT DANGER AREAS

RADIATION AND ANTENNAS

NOTE:

- Distance from radar disc to forward tip of radome = 5 feet.
- ECM pods radiate in a fan pattern fore and aft.

F-16

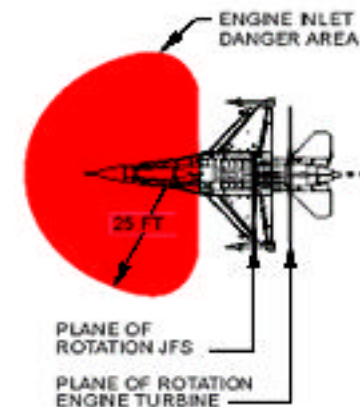


F-16.11 AIRCRAFT DANGER AREAS-Continued

ENGINE THRUSTS FOR F110-GE-100/129/132

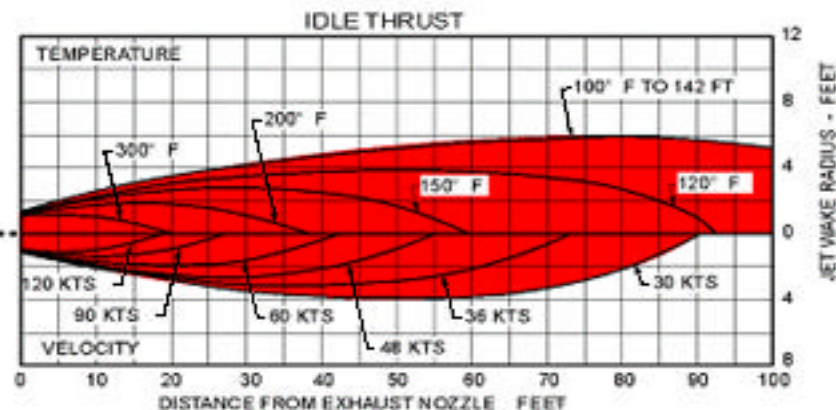
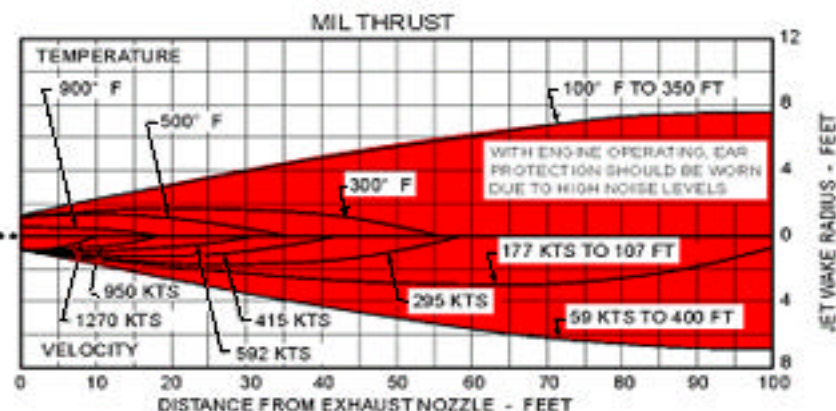
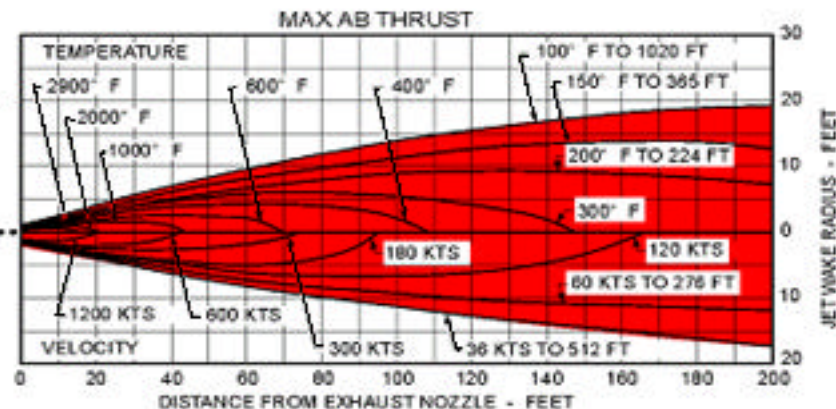
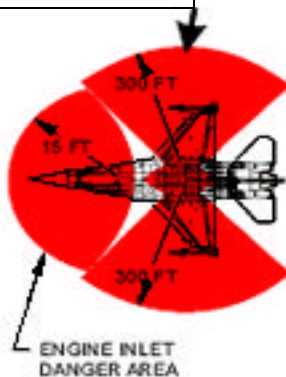
CAUTION

The safe distance to maintain around engine intakes is 25 feet regardless of thrust.



TIRES AND HOT BRAKES

Avoid inflated MLG tire side area within 300 feet for 45-60 minutes after aircraft has stopped. If required, approach from the front or rear only.



F-16

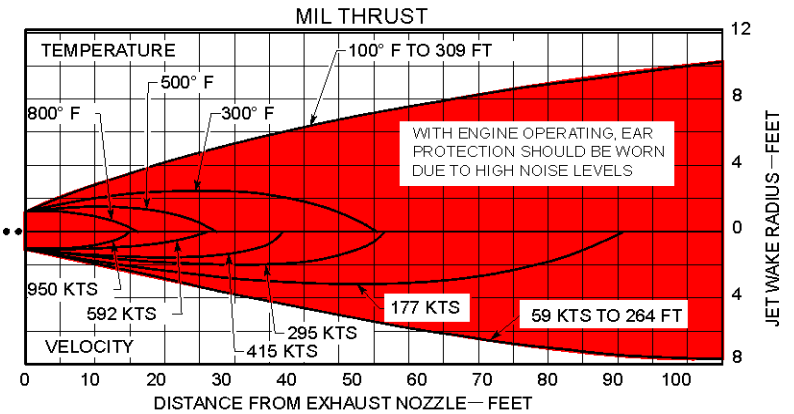
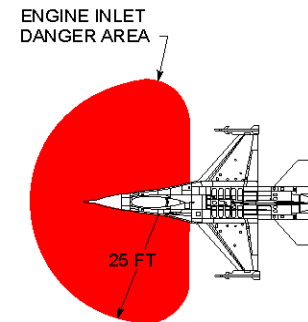
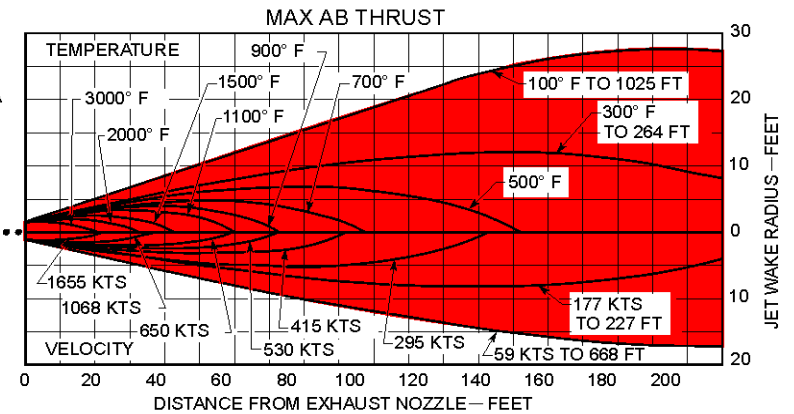
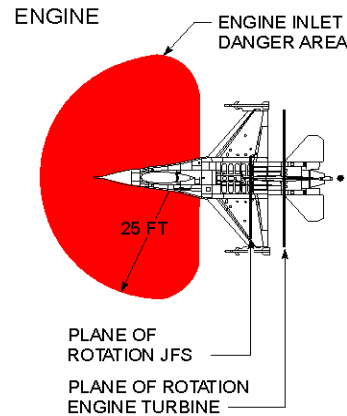
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F-16.12 AIRCRAFT DANGER AREAS-Continued

ENGINE THRUSTS FOR F110-PW-200/220/220E

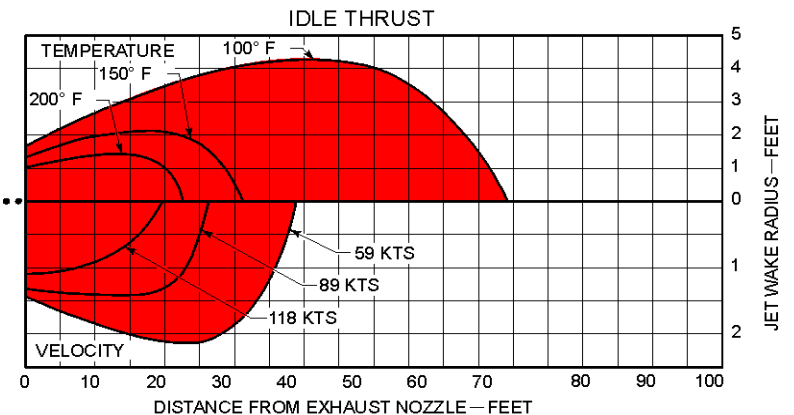
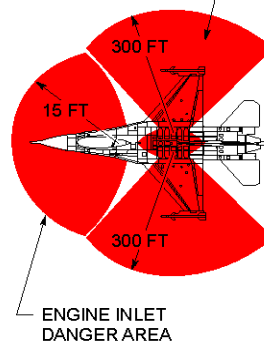
CAUTION

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TIRES AND HOT BRAKES

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F-16

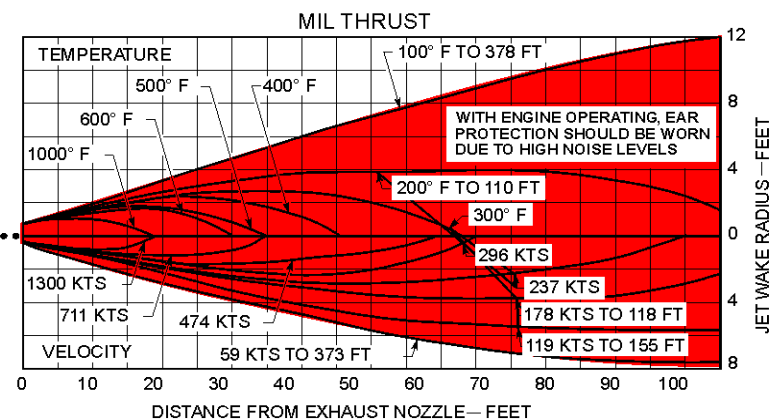
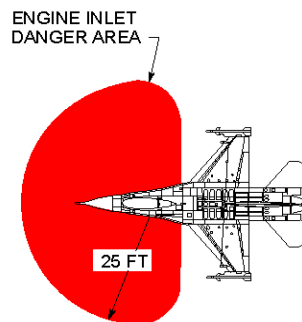
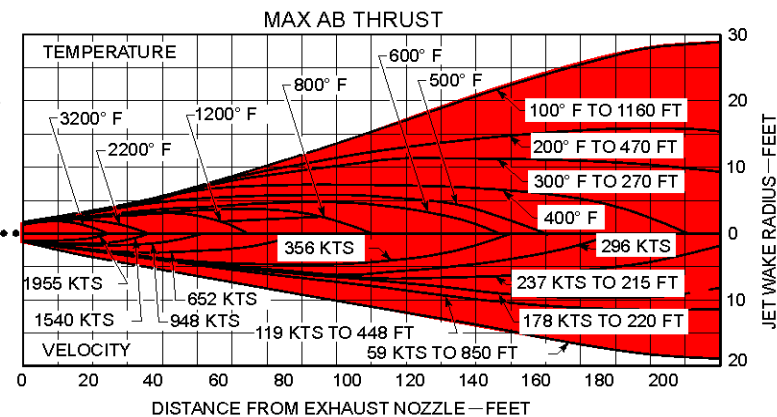
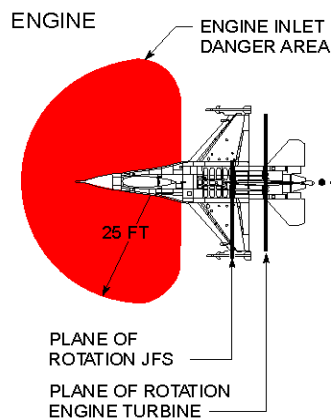
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F-16.13 AIRCRAFT DANGER AREAS-Continued

ENGINE THRUSTS FOR F110-PW-229

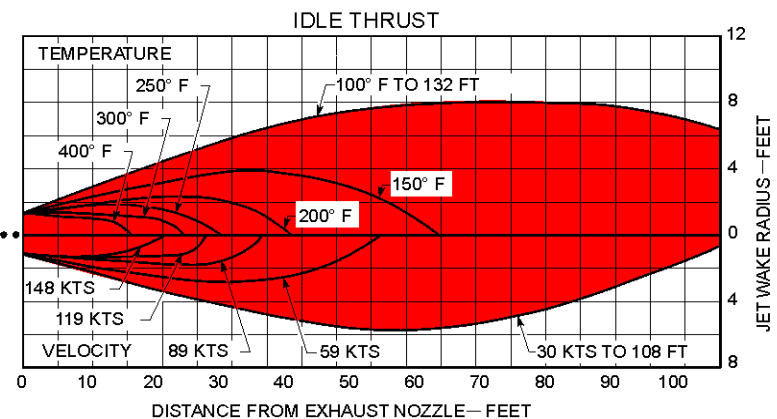
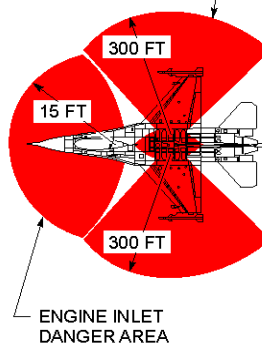
CAUTION

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TIRES AND HOT BRAKES

Avoid inflated MLG tire side area within 300 feet for 45-60 minutes after aircraft has stopped. If required, approach from the front or rear only.



F-16

T.O. 00-105E-9

SPECIAL TOOL

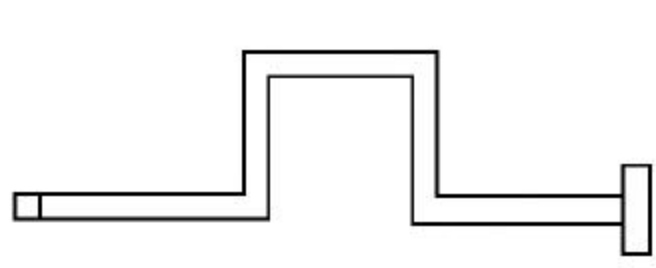
LOCAL MANUFACTURED TOOL

NOTE:

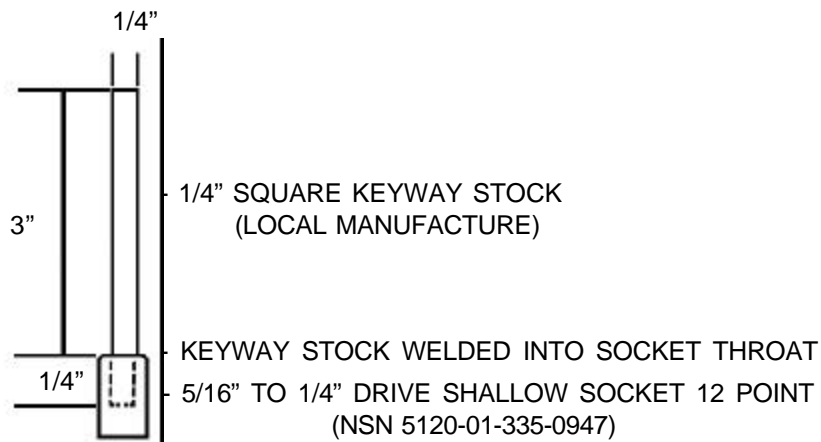
This tool can be locally manufactured with 1/4" keyway stock for the 1/4" plug removal on the left side fuselage. The 1/4" keystock will prevent wearing out the plug head and accelerate the rescue process. See page F-16.10 steps 2a and 3a for application. Attach this tool to a socket wrench or speed handle. A substitute tool for the socket wrench or speed handle can be a cordless drill.

WARNING

DO NOT USE A POWERED DRILL TO OPEN THE CANOPY! The canopy mechanisms are not engineered for rapid opening and a malfunction can occur resulting in a possible falling canopy and failed rescue!



TYPICAL 1/4" DRIVE SPEED HANDLE FOR SPECIAL TOOL



SPECIAL TOOLS/EQUIPMENT

Power Rescue Saw w/ Carbide Tipped Toothed Cutting Blade
 Speed Handle -1/4 In. Drive Socket Drive
 1/4 In. Drive Apex Holder w/ 9/64 Inch Apex
 2 each Safety/Gun Pins P/N NAS1333C3C151D or Equivalent
 0.149 to 0.125 Diameter Drill Rod at least 8 In.
 Cordless Drill Fire Drill II Wire Cutters/Dikes
 Portable Engine Shutdown Box

AIRCRAFT ENTRY

CAUTION

Entry procedures vary if engine is running. Pilot maybe active or incapacitated and condition of aircraft is uncertain. Refer to either normal or emergency procedures.

WARNING

DO NOT PIN NOSE GEAR UNTIL ENGINE IS SHUTDOWN!

1. GUN SAFETYING

- a. Avoid placing hand inside gun safe compartment. From the outside only, install gun safety pin in receptacle underneath the left strake, aft of canopy external switch access door and outboard of exit door No. 3105.

WARNING

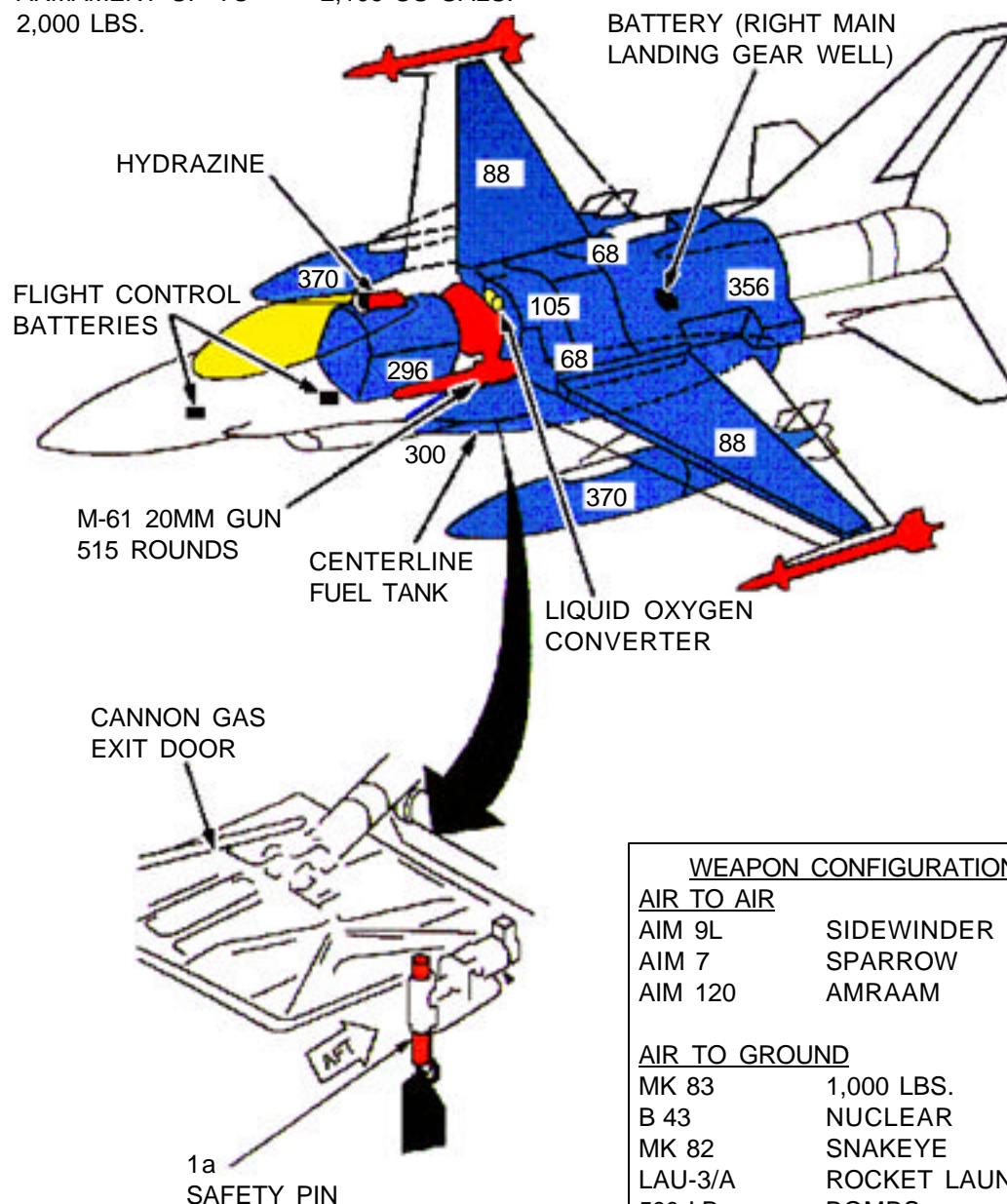
FOR AN ACTIVATED EPU

The EPU is no longer required to be safed after EPU activation and/or until engine is shutdown. EPU contains 6.8 gallons of hydrazine fuel. Unless required by this technical order, personnel will not approach engine intake closer than five feet from either side or rear and maintain a safe distance of 25 feet from front intake when engine is running. Safety pinning an activated EPU unnecessarily places firefighters/rescue personnel in imminent danger working near the engine intake. Disregarding this **WARNING** could result in **injury or death** to rescue personnel and possible engine F.O.D. with the EPU safety pin assembly.

CONVENTIONAL
 ARMAMENT UP TO
 2,000 LBS.

TOTAL FUEL
 2,109 US GALS.

F-16



WEAPON CONFIGURATIONS

AIR TO AIR

AIM 9L	SIDEWINDER
AIM 7	SPARROW
AIM 120	AMRAAM

AIR TO GROUND

MK 83	1,000 LBS.
B 43	NUCLEAR
MK 82	SNAKEYE
LAU-3/A	ROCKET LAUNCHER
500 LB	BOMBS
PAVEWAY LASER GUIDED BOMBS	
AGM-78	A.R.M.
AGM-65	MAVERICKS

AIRCRAFT ENTRY-Continued

F-16

2. NORMAL ENTRY

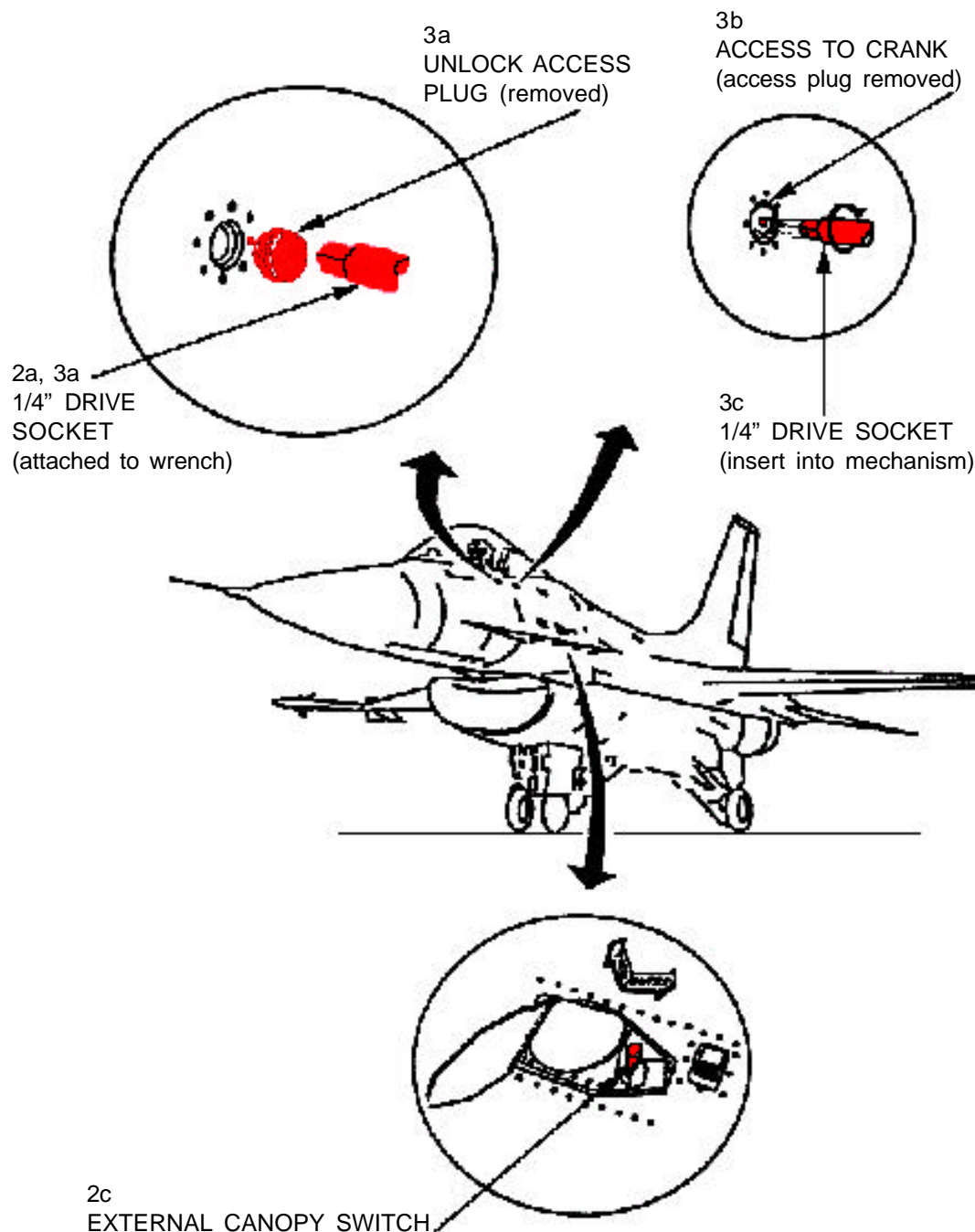
NOTE:

If canopy is not locked from the inside, move the external canopy switch, located at left wing strake at door 2105, to the UP position to open canopy.

- Use a 1/4 inch dr. socket wrench or speed handle to remove unlock access plug, located left side of fuselage. Use cordless drill to remove plug if stripped.
- Insert at least a 0.149 to 0.125 inch diameter drill rod into crank insert opening and push inboard to unlock canopy.
- Access door 2105, depress thumb catch and move the external canopy switch to the UP position to open canopy.

3. MANUAL ENTRY

- Use a 1/4 inch dr. socket wrench or speed handle to remove unlock access plug, located left side of fuselage. Use cordless drill to remove plug if stripped.
- Insert at least a 1/8 inch diameter drill rod into opening and push inboard to unlock canopy.
- Insure that canopy unlock handle is raised to unlock position. Insert 1/4 inch dr. socket wrench or speed handle into crank insert opening mechanism located left side of fuselage aft of unlock access plug.
- Rotate canopy opening mechanism clockwise 52 revolutions to fully open a single seat F-16A/C canopy or 87 revolutions on a two seat F-16B/D.



AIRCRAFT ENTRY-Continued

4. EMERGENCY ENTRY

WARNING

- If the canopy is restrained by debris or jammed by crash damage, do not jettison the canopy. Attempted jettison may result in a portion of the canopy rocket exhaust entering the cockpit. This exhaust may expose the crewmembers to a toxic gas, heat, and blast hazard.
 - Flames, heat, and blast from the canopy jettison rocket exhaust nozzles will extend to the pavement and could ignite flammable fluids and vapors.
- a. Open canopy emergency release door, located on each side of fuselage below canopy. Only one canopy release door needs to be opened to jettison the canopy. Only one thumb latch per door is installed and only one thumb latch needs to be pushed.
 - b. Extend jettison handle to full length (approximately 6 feet) and pull to jettison canopy.

5. CUT-IN

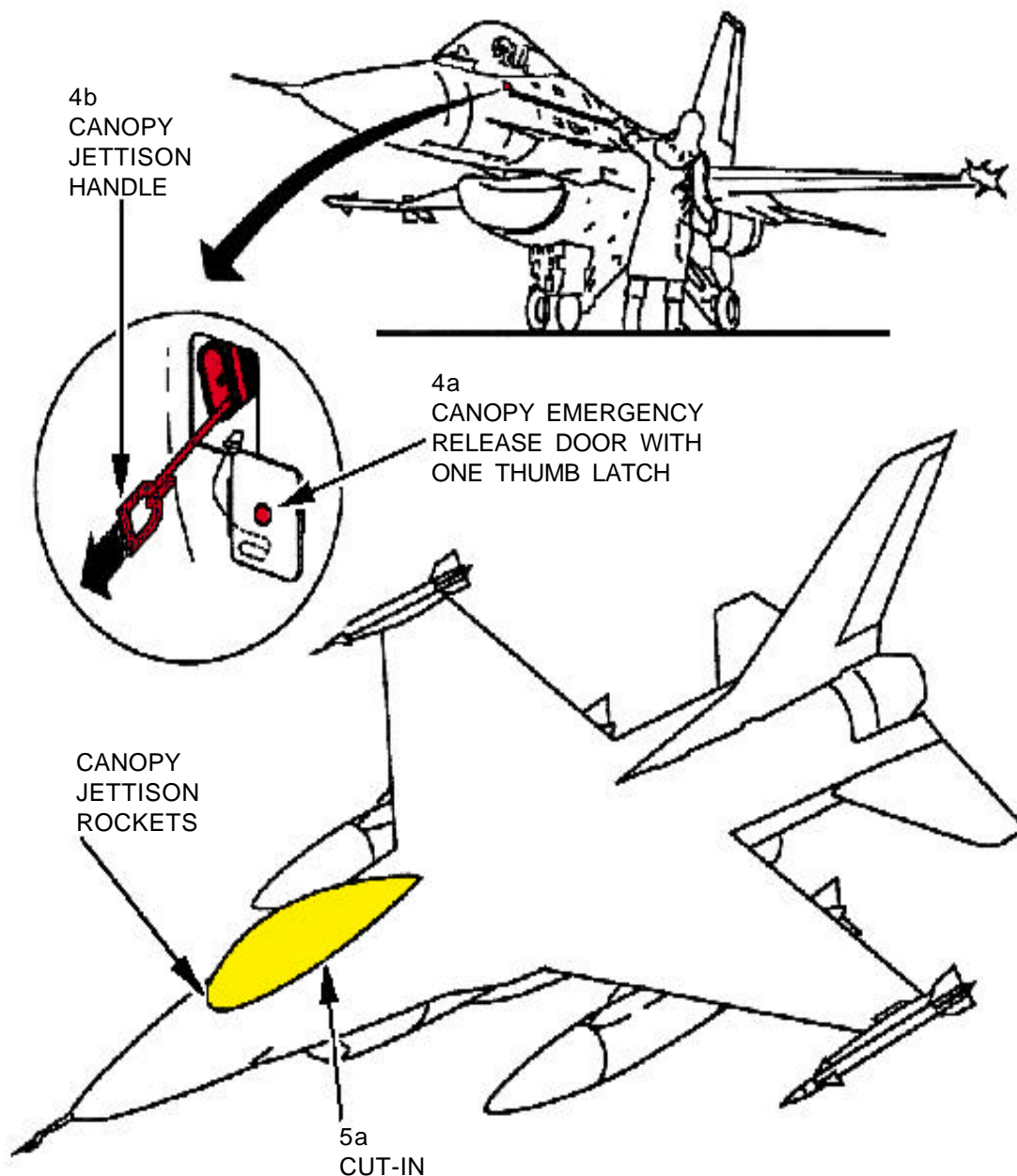
NOTE:

Due to the strength of the canopy transparency, all sides of the canopy must be cut to reach the crewmember(s).

WARNING

Extreme caution must be taken during the cutting operation to avoid hitting the canopy jettison rockets and other ballistic components mounted in or near the canopy frame.

- a. Cut through the canopy transparency using a power rescue saw with a carbide tipped, toothed cutting blade. On a F-16B/D, the aft seat transparency material is thinner and easier to cut.



EMERGENCY ENGINE SHUTDOWN #1

NOTE:

Use the appropriate shutdown procedures #1 - 4 to fit the emergency.

1. INCAPACITATED PILOT OR UNMANNED COCKPIT OR EJECTED SEAT(S) WITH UNIMPEDED ENTRY TO COCKPIT

- a. Enter cockpit and move throttle, located on aft left console (fwd cockpit only on F-16 two seat models) while tilting handle upward/outboard and squeezing throttle cutoff release trigger to proceed from IDLE to OFF position.

NOTE:

F-16 two seat models have a functional fuel master switch in rear cockpit.

- b. If the engine fails to shutdown, place fuel master switch, located on fuel control panel directly aft of the throttle to OFF position.

NOTE:

Some F-16s may have the MFSOV safety wired open. Safety wire on the MFSOV must be cut and removed to allow the MFSOV to close electrically when the fuel master switch is placed in the OFF position.

NOTE:

F-16B/D also has a functional fuel master switch, located on the fuel control panel just aft of the throttle.

- c. If conditions permit and adequate personnel protective gear is available, insert an EPU safety pin into the EPU safety pin receptacle, located on the lower right inlet skin, just above panel 2310, approximately 3 1/2 feet aft of the engine inlet lip. See page F-16.20.

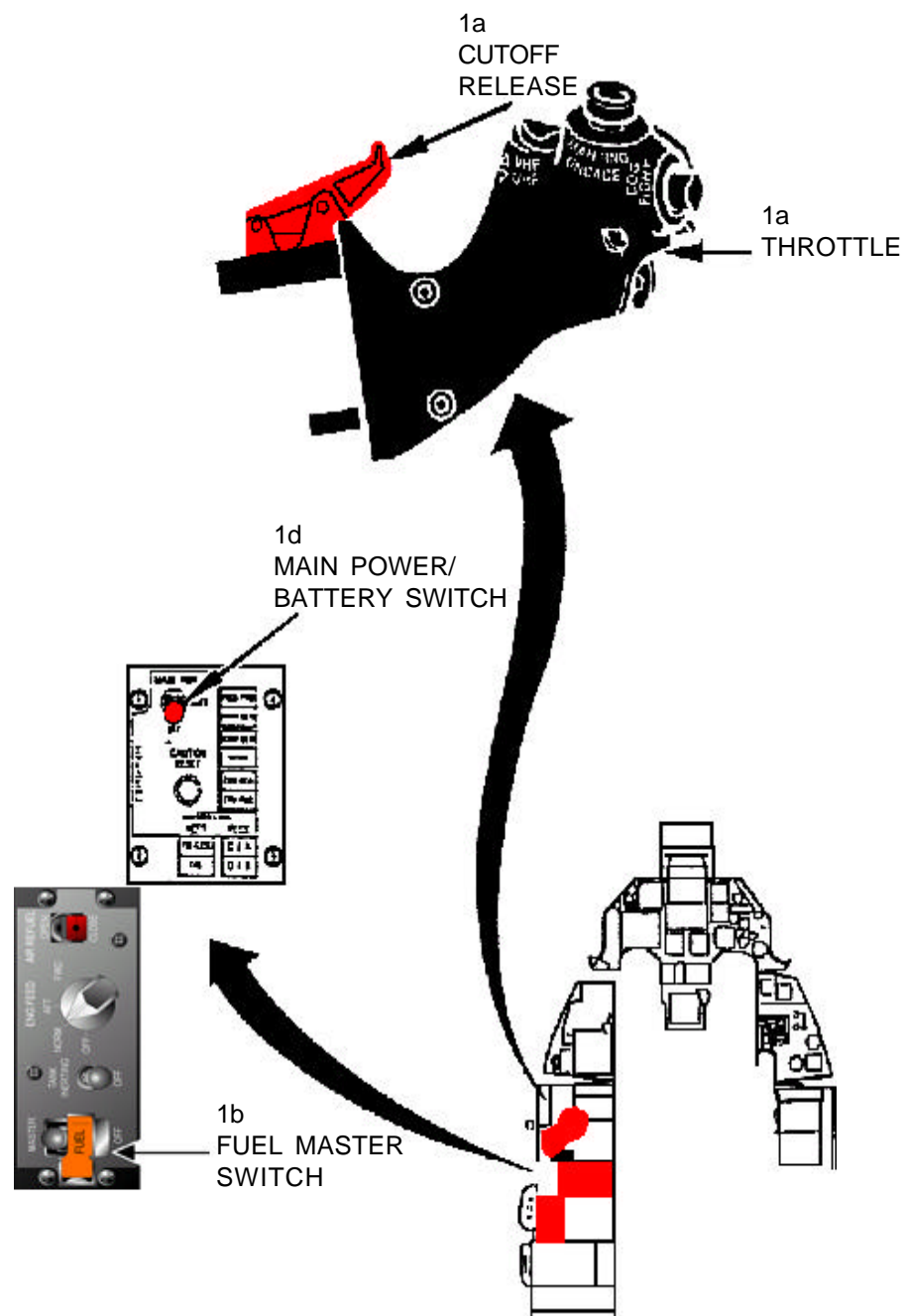
NOTE:

If the EPU fires during the emergency ground rescue sequence, reduced electric and hydraulic demands will permit hydrazine quantity to support approximately 15 minutes of EPU operation.

- d. Place main power/battery switch, located forward of fuel master switch, to OFF position.
- e. Disconnect aircraft battery, located in the right main wheel well, if accessible. See page F-16.15.

NOTE:

Without weight on wheels, battery power can only be removed by disconnecting the single electrical connection from the battery.



EMERGENCY ENGINE SHUTDOWN #2

2. INCAPACITATED PILOT OR UNMANNED COCKPIT OR EJECTED SEAT(S) WITH IMPEDED ENTRY TO COCKPIT

NOTE:

Recent F-16 incidents have warranted an overhaul of existing procedures. The following procedures are a result of air accident investigation board findings and recommendations.

WARNING

When the EPU is operating, hydraulic and electric power will be available to move flight control surfaces. Review existing danger areas on pages F-16.10 - F-16.13 to prevent injury or death to personnel working under extreme emergency conditions.

- a. It will be necessary to pin the EPU for the following procedures. The EPU will activate when manually moving the MFSOV. See page F-16.20.
- b. Gain access to the MFSOV, located under panel 4220 at the right wing root below the flap hinge.

NOTE:

If panel 4220 is not accessible, perform applicable Aircraft Entry or Emergency Entry procedures on pages F-16.15 and F-16.16 and then proceed to next page.

- c. Depress the thumb releases on panel 4220 and lower panel for access to MFSOV or use an allen head for the tridair fastener.
- d. Disconnect or manually cut (with insulated dikes) the cannon plug from MFSOV to remove electrical power.

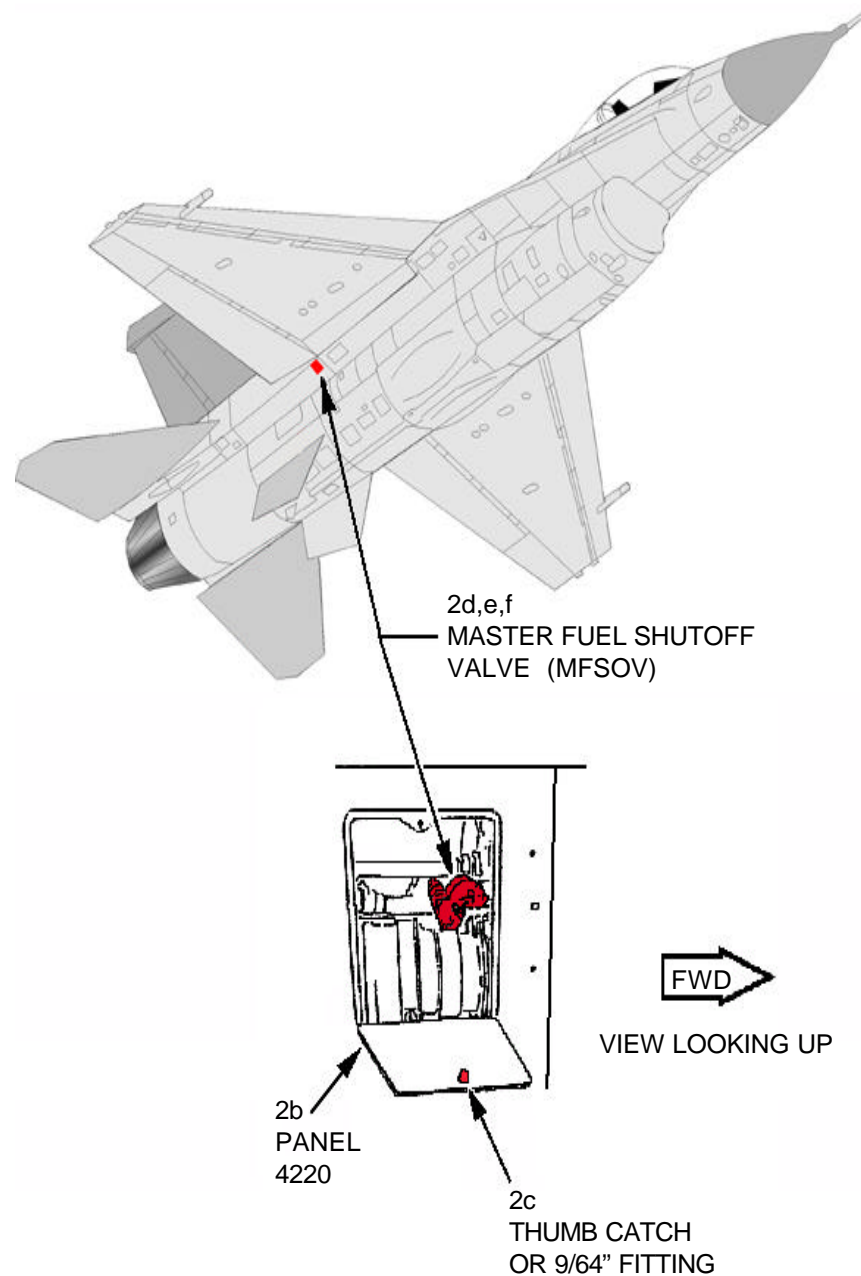
NOTE:

Failure to remove electrical power will not allow shutdown using the MFSOV lever.

- e. Check for and cut safety wire, located on MFSOV lever, if installed.

NOTE:

- At high RPM, holding lever may prove difficult. The degree of closure may be sufficient to reduce RPMs allowing cockpit access to the fuel master switch.
 - Throttle of F-16 two seat models cannot be positioned to OFF in rear cockpit.
- f. Push inboard, maintain forward pressure on MFSOV lever and hold. Shutdown will occur 30 to 90 seconds. Shutdown time depends on engine type and power setting. Beware of possible movement of flight control surfaces and/or aircraft.



EMERGENCY ENGINE SHUTDOWN #3

3. ACTIVATED EPU - PILOT ACTIVE

CAUTION

Unless weight is on wheels, the EPU will start up when the engine is shutdown. Chock left main landing gear, but beware of hazards around a running aircraft. **Manually operating the MFSOV will be understood as a last resort procedure only.**

NOTE:

Pilot action is required for the following steps: a - c only. Remaining steps are performed by rescue crew.

- Confirm EPU switch is in the OFF position.
- Confirm the throttle is in the OFF position.
- Confirm main power/battery switch is in OFF position.
- After engine has stopped, pin the EPU ground safety switch.

NOTE:

If conditions make installation of the EPU safety pin impossible or impractical, disconnecting the battery in right main wheel well will prevent startup of EPU.

- Install EPU safety pin in EPU pin receptacle, located on lower right inlet skin just above access panel 2310, approximately 3.5 feet aft of engine inlet lip. (If EPU activates, during procedure, reduced electrical and hydraulic demands will permit hydrazine quantity to support approximately 15 minutes of EPU operation.)

NOTE:

At high RPM, holding lever may prove difficult. The degree of closure may be sufficient to reduce RPMs allowing cockpit access to the fuel master switch.

- If the engine fails to shutdown, gain access to the MFSOV (Master Fuel Shut Off Valve), located under panel 4220 at the right wing root below the flap hinge.
- Depress the thumb releases on panel 4220 and lower panel for access to MFSOV.

NOTE:

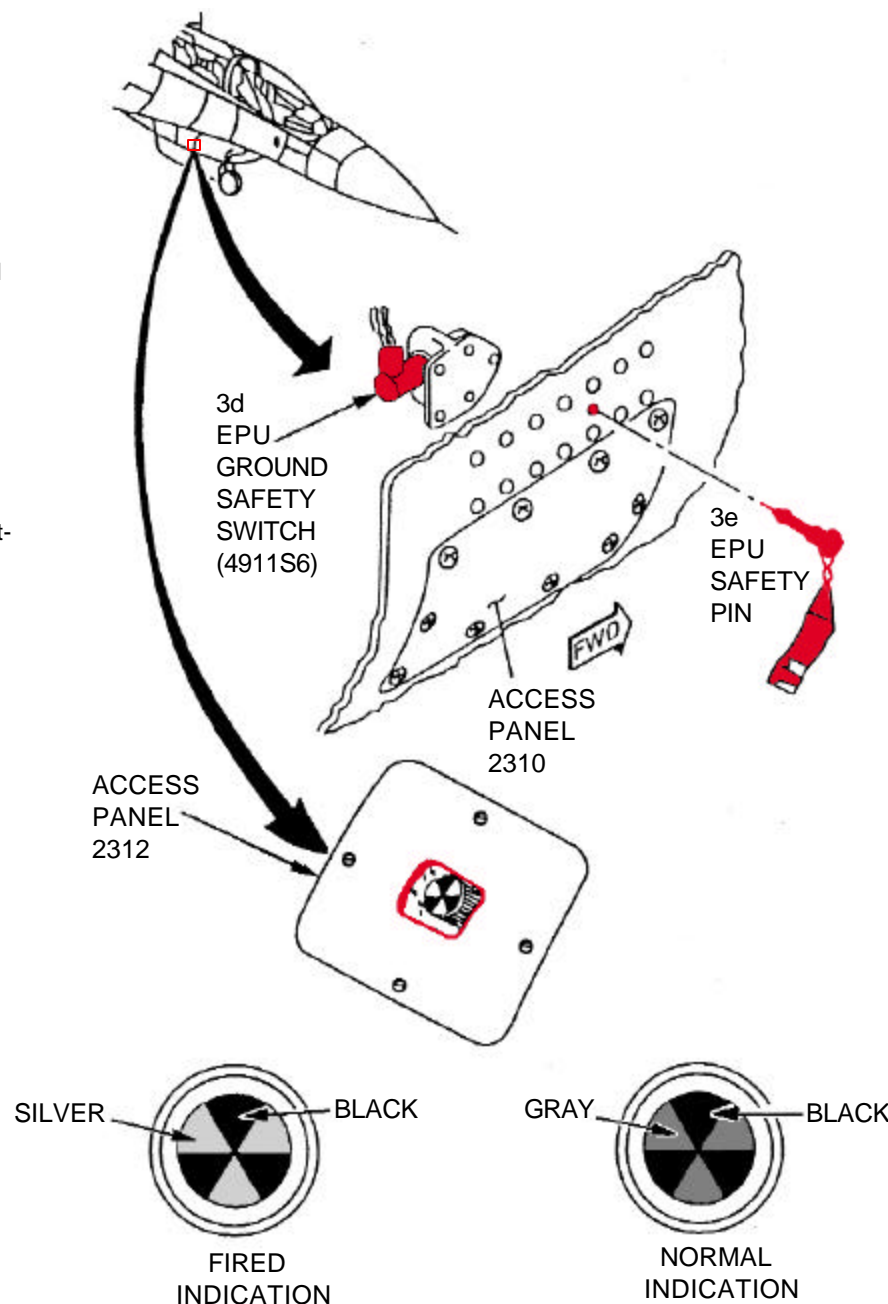
Failure to remove electrical power will not allow shutdown using the MFSOV lever.

- Disconnect or manually cut (with insulated dikes) the cannon plug from MFSOV to remove electrical power.
- Cut safety wire located on MFSOV lever.
- Push and maintain forward pressure on MFSOV lever. Shutdown will occur 30 to 90 seconds. Beware of possible movement of flight control surfaces and/or aircraft.

NOTE:

Without weight-on wheels, battery power can only be removed by disconnecting the electrical connections from the battery.

- Disconnect battery, located in right main wheel well, if accessible.



EMERGENCY ENGINE SHUTDOWN #4

4. EMERGENCY ENGINE SHUTDOWN WITH PORTABLE BOX

NOTE:

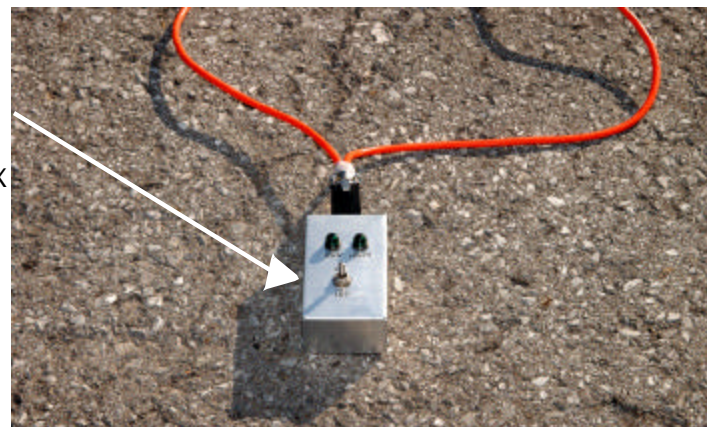
If time permits and a last resort situation occurs, use this device to quickly and safely shutdown the F-16 engine regardless of engine RPM. The portable engine shutdown switch box has one ON/OFF switch and two indicator lights. The upper left indicator light will illuminate when the 28 volt power source is available. The upper right indicator light will illuminate when the fuel valve is CLOSED. There are two 25 foot long leads connected directly to the box and a separate short lead for the fuel valve connector. Time to shutdown fuel flow at switch closer, at idle, is 4 seconds and 41 seconds for total shutdown as fuel in lines are burned off. Less total time occurs at higher RPMs.

WARNING

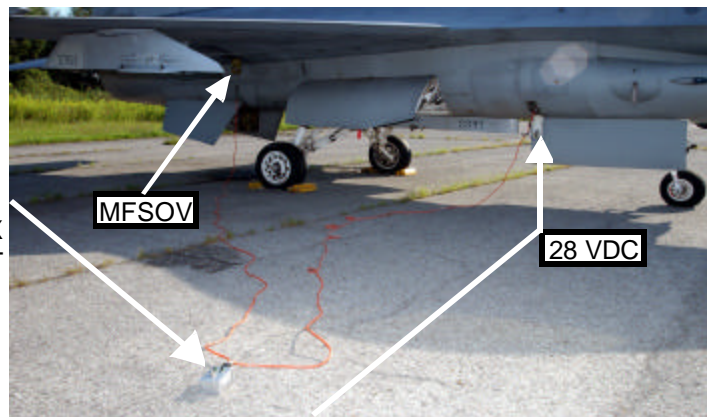
Engine intake hazards must be observed. Due to a weight-on-wheels condition, if applicable, it will be necessary to install the safety pin in the EPU. If the EPU is not pinned, the EPU will activate during the emergency engine shutdown operation. The EPU safety pin and streamer can FOD the engine if ingested in the engine intake and possibly cause catastrophic engine failure. This hazardous situation can cause injury or death to those performing these functions.

- Read above WARNING before proceeding. If a weight-on-wheels condition has been determined, safety pin the EPU, to prevent EPU activation during the following procedures.
- Prior to operation and connecting to the aircraft, the ON/OFF switch on the portable engine shutdown box must be in the OFF position before installing wire leads and operating.
- Approach aircraft right side. Place portable engine shutdown box forward of right wing before connecting box to aircraft.
- Use a suitable external 28 VDC power source or approach and open the 28 volt power access door, located at the aft end of the nose landing gear door on the fuselage. There are three canon plug connections inside the access panel. Connect the left box lead, labeled "28 VDC" to the 28 volt power source at the right canon plug connection.

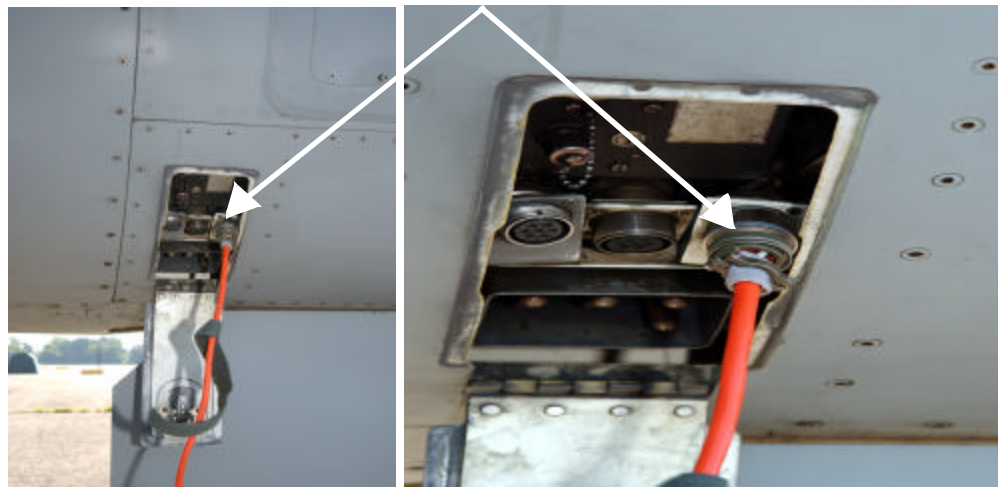
4b
PORTABLE
ENGINE
SHUTDOWN
SWITCH BOX



4c
PORTABLE
ENGINE
SHUTDOWN
SWITCH BOX
AT AIRCRAFT
RIGHT SIDE



4d
28 VDC ACCESS DOOR AND CONNECTION

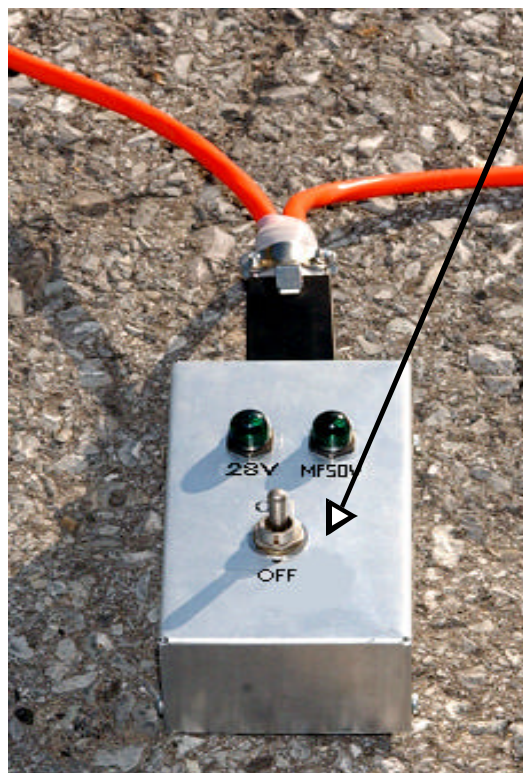
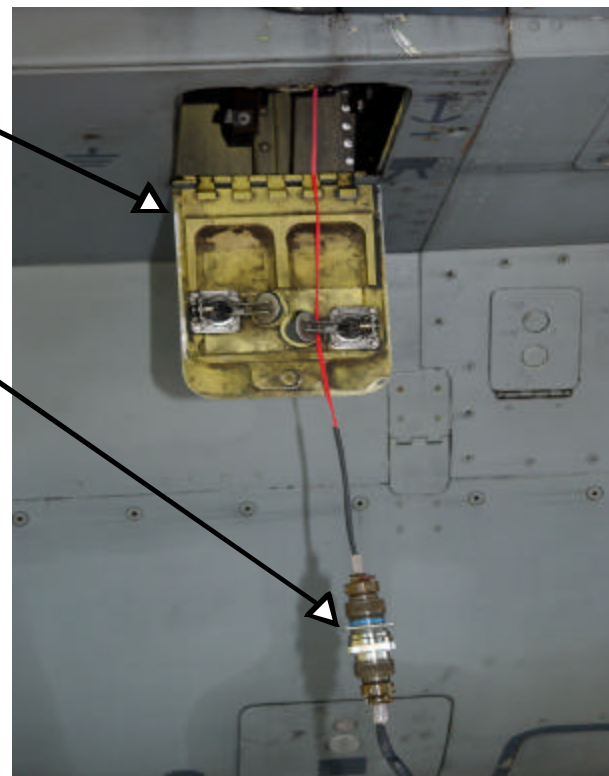


EMERGENCY ENGINE SHUTDOWN #4 - Continued

4. EMERGENCY ENGINE SHUTDOWN WITH PORTABLE BOX- Continued

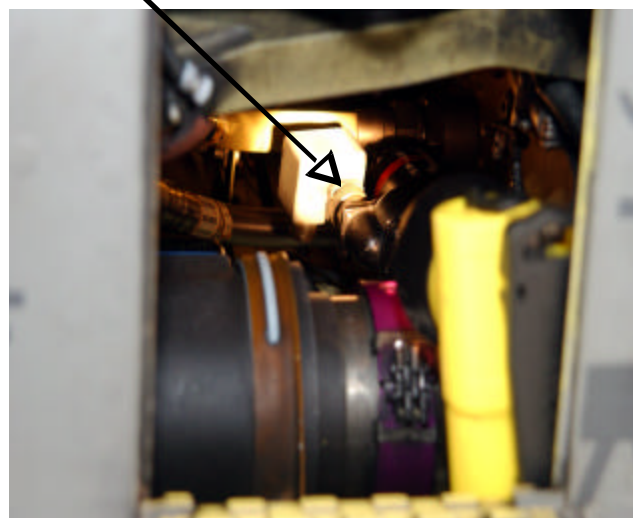
- e. Approach and open the fuel valve access door, located at the aft end of the right main landing gear door on the fuselage. There is one canon plug and the fuel valve located inside the access door. Disconnect the fuel valve canon plug and connect the short lead to the fuel valve at the 3 o'clock position (looking down from the top). Then connect the short lead to the right box lead, labeled "MFSOV".
- f. Place the ON/OFF switch to the ON position. When the switch is placed to the ON position, the fuel valve indicator will illuminate indicating the fuel valve is now Closed.
- g. The engine will now wind down to total shutdown allowing aircrew rescue and extraction.

4e
MAIN FUEL SHUTOFF
VALVE ACCESS DOOR
WITH SHORT LEAD
CONNECTED TO MFSOV
AND PORTABLE BOX
CANON PLUG

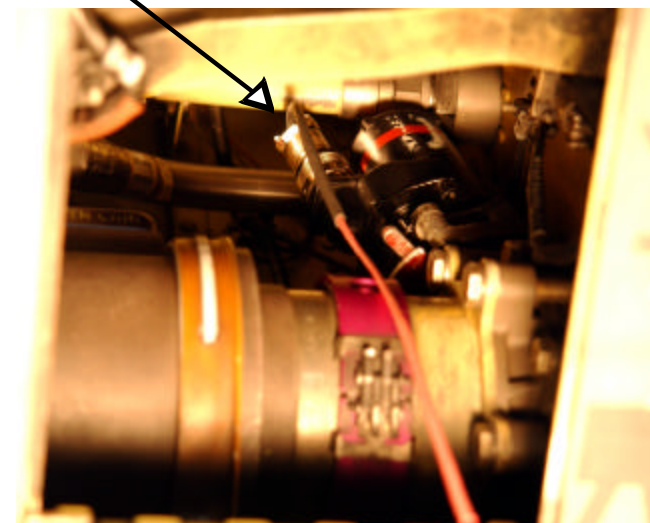


4f
ON/OFF SWITCH

4e
MFSOV BEFORE CANON PLUG REMOVAL

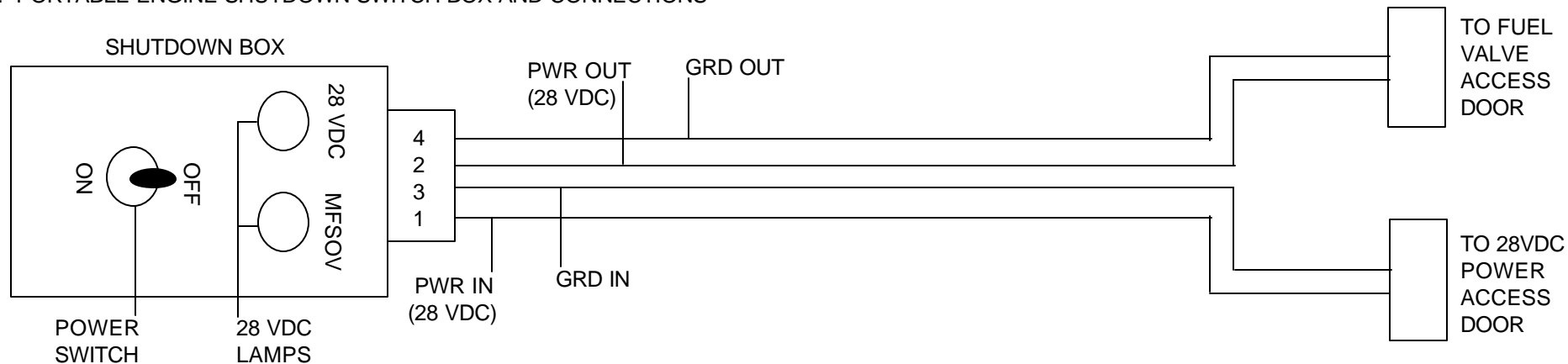


4e
MFSOV AFTER CANON PLUG INSTALLATION

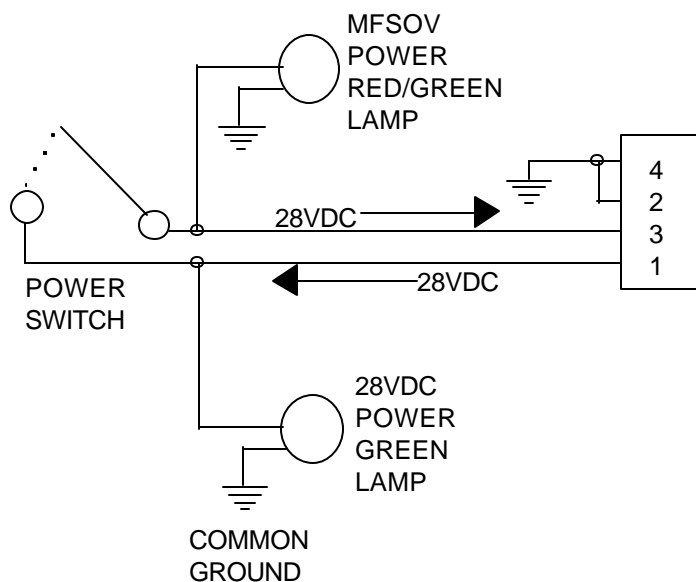


PORTABLE ENGINE SHUTDOWN BOX CONNECTIONS, SCHEMATIC AND EQUIPMENT LIST

1. PORTABLE ENGINE SHUTDOWN SWITCH BOX AND CONNECTIONS



2. PORTABLE ENGINE SHUTDOWN SWITCH SCHEMATIC



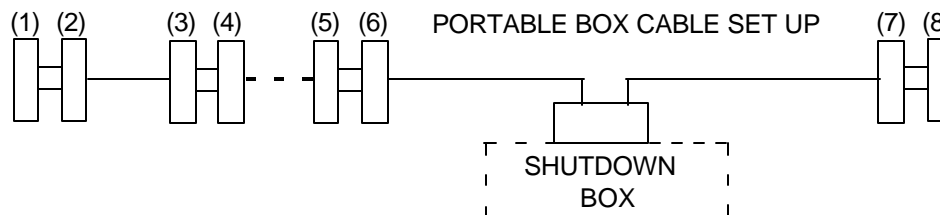
3. EQUIPMENT LIST FOR PORTABLE ENGINE SHUTDOWN BOX

Short MFSOV Cable: (1) Connector, MS3476L10-6S, 5935-01-077-5856, \$15.51
 (2) Cable Clamp Assy, G8252-10NF, 5985-01-230-8341, \$10.09
 (3) Backshell, S1724C16-34, 5935-01-230-4151, \$7.75
 (4) Connector, MS3472W16-26P, 5935-00-079-5369 \$?

Long MFSOV Cable: (5) Connector, MS3476L16-26S, 5935-01-106-3899, \$21.65
 (6) Backshell, S1724C16-34, 5935-01-230-4151, \$7.75

Long 28 VDC Cable: (7) Backshell, M85049/52-1-16W, 5935-01-171-1966, \$2.66
 (8) Connector, M83723/76R1624N, 5935-01-169-9966, \$19.07

Local Manufacture: 1 each Test Box
 2 each 16 Gauge Cables @ 25 Feet in Length
 2 each 28 Volt Lamp
 1 each Power Switch

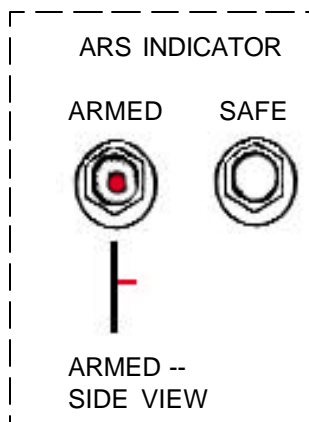


EJECTION SEAT INDICATOR

1. EJECTION SEAT INDICATOR

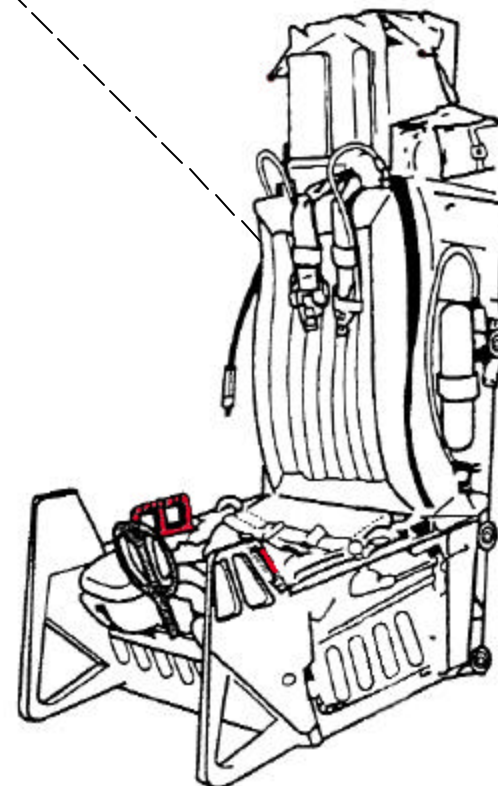
WARNING

A Seat Armed Indicator located on the upper right side of the seat can indicate WHITE for OK and RED for SEAT ARMED. This indicates that the Advanced Recovery Sequencer (ARS) battery condition is serviceable or expended. If expended, the white sealant will be punctured by a protruding red pin. If this is a recent condition, it will take two hours for the seat to be considered safe to work around or remove. Electrical battery power is required to energize the recovery sequencer circuits for the numerous explosives on the seat. Use extreme caution and judgement in this case. If time permits, call the local Egress Shop before proceeding. If emergency exists and time does not allow inspection by the Egress Shop, sever all exposed ballistic lines including top of seat for the rocket catapult.



NOTE:

Do not touch indicator sealant when checking condition. Frequent touching wears off sealant exposing tip of red pin indicating a false ARMED ARS condition.



SAFETYING EJECTION SEAT

WARNING

The seat is armed regardless of canopy position. Jettisoning the aircraft canopy automatically arms the ACES II ejection seat. Seat(s) can eject whether canopy is opened or closed. On two seat aircraft, both seats must be safetied before either can be considered safe. Extreme caution must be used not to inadvertently move the Ground Safety Lever from the SAFE position during aircrew extraction. **DO NOT USE PITOTS FOR HANDHOLD DURING ANY OF THE OPERATION.**

1. NORMAL SAFETYING EJECTION SEAT

NOTE:

The Ground Safety Lever Safety Pin can be installed regardless of seat position.

- a. Rotate Ground Safety Lever, located on left side of seat, UP and FORWARD, and install safety pin in pin receptacle at base of lever near pivot point. Pin faces forward. If safety pin can not be installed, tape or tie Ground Safety Lever in UP position to prevent arming during extraction.
- b. Install Safety Pin in the Emergency Manual Chute Handle. If Ground Safety Pin and Emergency Manual Chute Handle Pin are connected by one safety streamer, route Emergency Manual Chute Handle under aircrew's legs, otherwise extraction will cause entanglement with streamer.

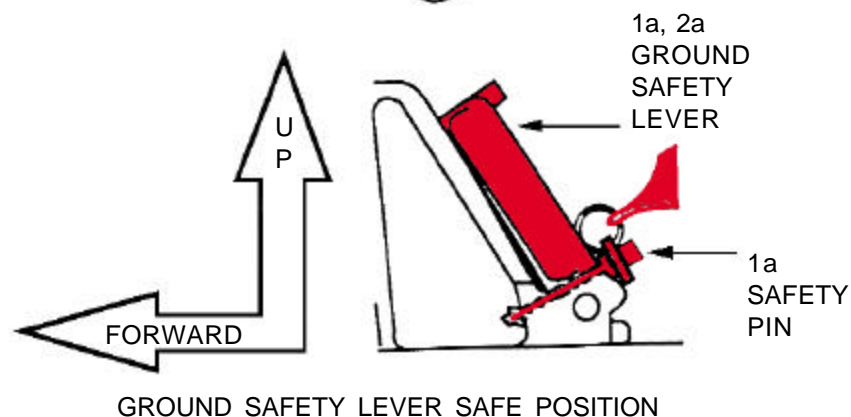
2. EMERGENCY SAFETYING EJECTION SEAT

- a. Rotate Ground Safety Lever, located on left side of seat, UP and FORWARD.
- b. Insure Ground Safety Lever does not rotate downward and arm seat during extraction or movement of aircrew.

EMERGENCY MANUAL
CHUTE HANDLE

PITOT
TUBES

1b
SAFETY PIN



AIRCREW EXTRACTION

3. AIRCREW EXTRACTION

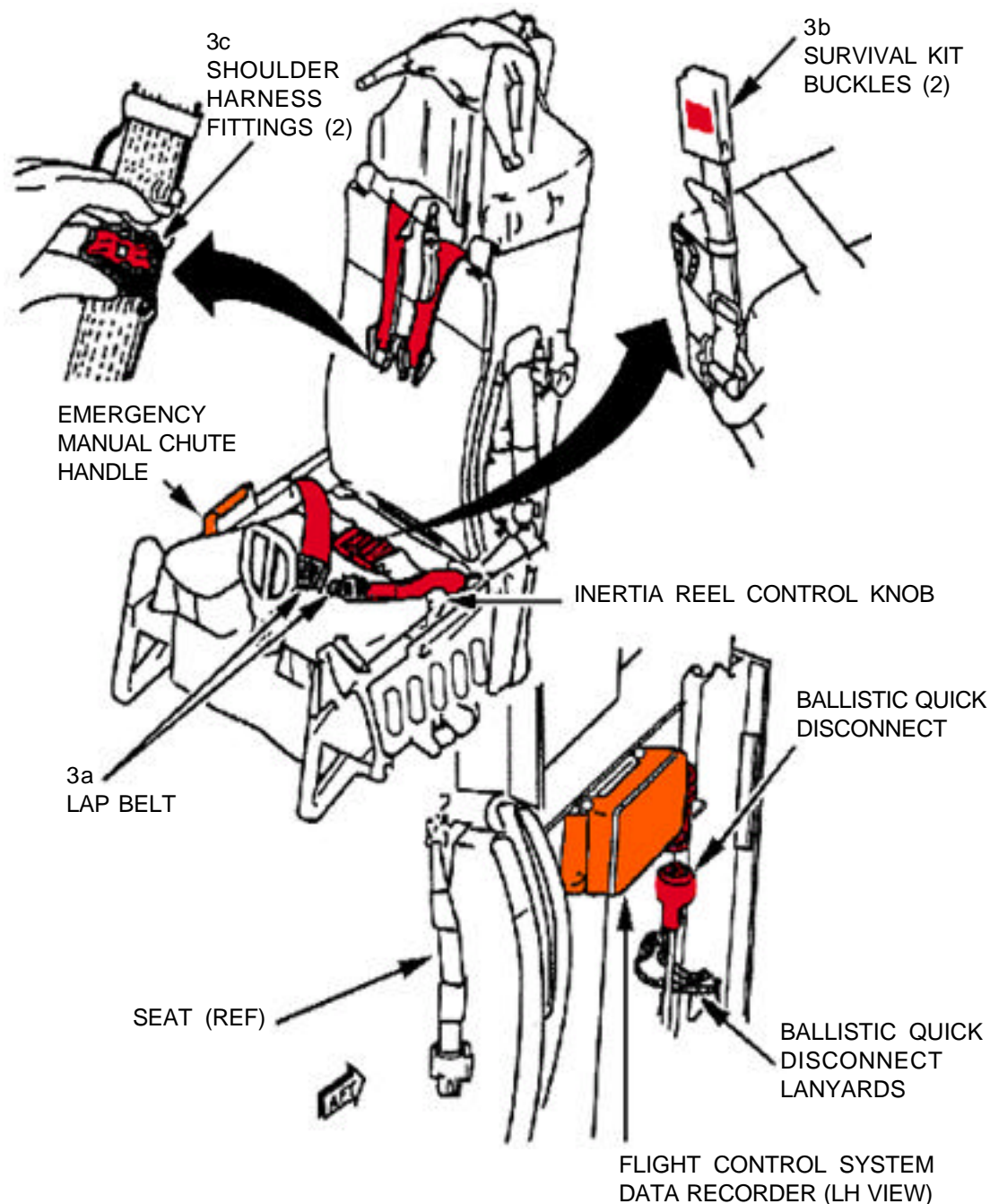
NOTE:

Use of Emergency Manual Chute Handle **DOES NOT** release aircrew restraints.

- Release lap belt by squeezing latch and release bar simultaneously.
- Release left and right survival kit buckles by depressing PUSH TO RELEASE button on each buckle.
- Release left and right shoulder harness fittings by squeezing latch and release bar simultaneously for each fitting. (See pg F-16.23 for additional information.)

NOTE:

- If the aircraft has collapsed landing gear or is in a gear up configuration and if time permits after rescue is complete, disconnect the electrical harness from the Flight Data Recorder, located on the left upper portion of the seat (front seat only on F-16B aircraft.) Grasp the lanyards attached to the connector and pull sharply downward. This will preserve recorded data of the mishap.
- The "G" suit hose located to the left side of the seat is directional in its separation at the disconnect. Pull straight down with a 12 to 70 pound pull force. If an offset direction is taken to disconnect hose from aircrew member, disconnect will not occur.



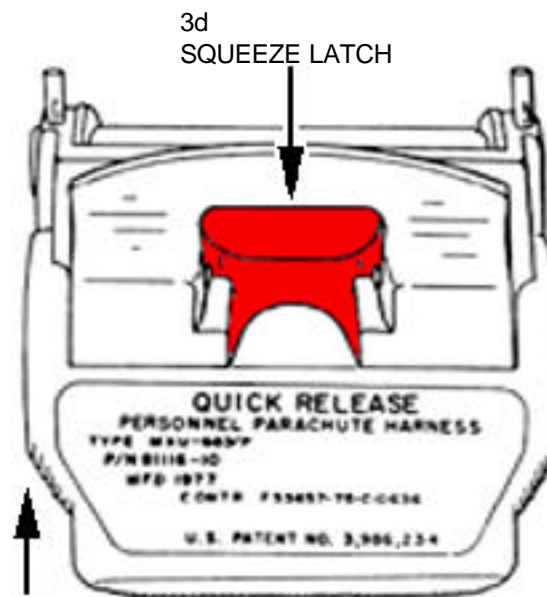
AIRCREW EXTRACTION-Continued

3. AIRCREW EXTRACTION - Continued

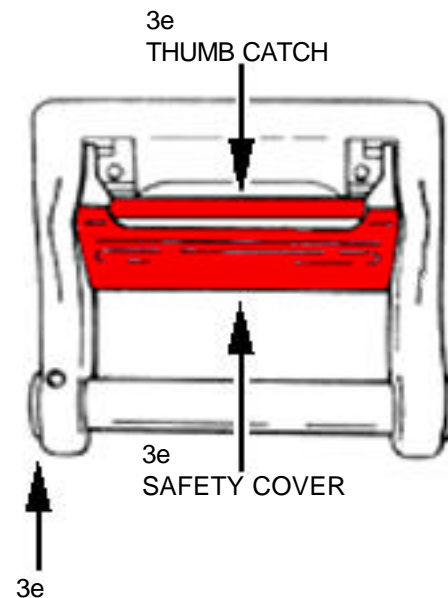
NOTE:

The shoulder harness fittings encountered may be different than the fitting mentioned on page F-16.22. Fittings may be a First or Second generation Koch or a Frost.

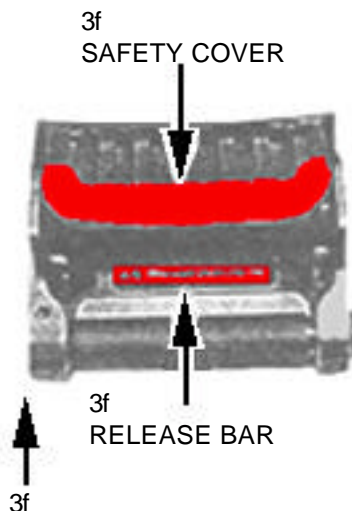
- d. Release left and right Frost shoulder harness fittings by squeezing latch and release bar simultaneously for each fitting as depicted on page F-16.22.
- e. Release left and right First Generation Koch shoulder harness fittings by rotating and holding safety cover downward, then pushing thumb catch upward to release straps.
- f. Release left and right Second Generation Koch shoulder harness fittings by lifting the safety cover, access the release bar, then rotate release bar downward to release straps.
- g. The chest and leg strap ejector snap is released by pushing the small catch of the ejector snap hook inward to release straps.



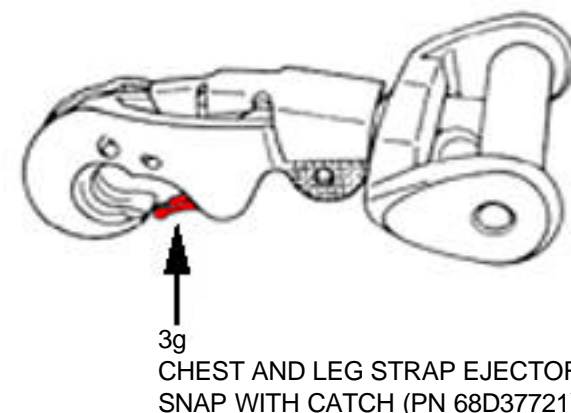
3d
SHOULDER HARNESS FITTINGS (2)
(FROST PARACHUTE CANOPY
RELEASE BODY, PN 8116-10)



3e
SHOULDER HARNESS FITTINGS (2)
(1st GENERATION KOCH PARACHUTE
CANOPY RELEASE BODY, PN 015-11038-1)



3f
SHOULDER HARNESS FITTINGS (2)
(2nd GENERATION KOCH PARACHUTE
CANOPY RELEASE BODY, PN 990010-1)



3g
CHEST AND LEG STRAP EJECTOR
SNAP WITH CATCH (PN 68D37721)